DOCUMENT RESUME

ED 142 538 SP 011 313

AUTHOR	Knierim, Helen
TITLE	NAGWS Bowling-Fencing Guide, January 1977-January 1979.
INSTITUTION	American Alliance for Health, Physical Education, and Recreation, Washington, D.C. National Association for Girls and Women in Sport.
PUB DATE	77
NOTE	164p.
AVAILABLE FROM	American Alliance for Health, Physical Education, and Recreation, 1201 Sixteenth Street, N.W., Washington, D.C. 20036 ($2.00)
EDRS PRICE	MF-$0.83 Plus Postage. HC Not Available from EDRS.
DESCRIPTORS	Athletic Coaches; *Athletics; *Lifetime Sports; *Skill Development; *Training Techniques; *Womens Athletics
IDENTIFIERS	*Bowling; *Fencing

ABSTRACT

This manual is designed for use by coaches of bowling and fencing. Rules and regulations are outlined, and game strategies and teaching techniques are discussed. A bibliography for each sport is included. (JD)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

National Association for Girls & Women in Sport •

PERMISSION TO REPRODUCE THIS COPYRIGHTED MATERIAL BY MICRO FICHE ONLY HAS BEEN GRANTED BY

AAPHER

TO ERIC AND ORGANIZATIONS OPERATING UNDER AGREEMENTS WITH THE NATIONAL INSTITUTE OF EDUCATION FURTHER REPRODUCTION OUTSIDE THE ERIC SYSTEM REQUIRES PERMISSION OF THE COPYRIGHT OWNER"

Bowling - Fencing

JANUARY 1977 – JANUARY 1979

With Official Rules

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

NAGWS SPORTS GUIDES

NAGWS Guides are available for 22 sports. *Guides* contain information on

- NAGWS or NAGWS-approved playing rules
- Officials' ratings in most sports
- Articles on teaching and coaching techniques and organization
- Regulations governing AIAW national championships in applicable sports
- Bibliographies
- Special features related to specific sports

A section in each *Guide* presents information about NAGWS and the services it offers to teachers, coaches, administrators and players.

The following *Guides* are available:

AQUATICS — featuring swimming and diving as well as synchronized swimming rules
ARCHERY-GOLF
BASKETBALL
BOWLING-FENCING
FIELD HOCKEY-LACROSSE — including seven articles and school girl lacrosse rules
GYMNASTICS
SOCCER-SPEEDBALL-FLAG FOOTBALL
SOFTBALL
TEAM HANDBALL-RACQUETBALL-ORIENTEERING
TENNIS-BADMINTON-SQUASH
TRACK AND FIELD — including Cross Country and Pentathlon scoring tables and rules
VOLLEYBALL

The *Basketball Guide* and *Volleyball Guide* are published annually. The remainder are published biennially.

For a catalog of current editions, prices and order information, please write:

AAHPER Promotion Unit
1201 16th St., N.W.
Washington, D.C. 20036

See inside back cover for a listing of additional NAGWS/AAHPER publications.

NAGWS guide

Bowling - Fencing

JANUARY 1977 – JANUARY 1979

With Official Rules

Helen Knierim
Slippery Rock State College
Coordinator of NAGWS
Sports Committees

Editors

Clare M. Albom, Bowling
Beth Cramer, Fencing

NATIONAL ASSOCIATION FOR GIRLS
& WOMEN IN SPORT
American Alliance for Health,
Physical Education, and Recreation

AAHPER publications

Copyright © 1977 by the

National Association for Girls and Women in Sport
American Alliance for Health, Physical Education, and Recreation

Library of Congress Catalog Card No. 54-44468

Published by the
AMERICAN ALLIANCE FOR HEALTH,
PHYSICAL EDUCATION, AND RECREATION

1201 Sixteenth St., N.W. Washington, D. C. 20036

CONTENTS

NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT 5

Standards in Sports for Girls and Women 7
National Coaches Council 8
NAGWS Sports Guides Committees Interest Indicator 11

BOWLING

NAGWS Bowling Committees 13
The Varsity Bowling Team ..... *Margot Beldon* 14
Strike Tradition – Spare Creativity ..... *Susan E. Wernick* 18
"Trust Your Bowling Ball" ..... *Agnes E. Stillman* 24
A Creative Approach to Testing ..... *Nelma Williams* 27
Teaching Aid for Spares and Splits ..... *Charlene Agne* 33
Bowling in the Elementary School Program ..... *Phyllis Cooper* 36
High School Intramural Bowling: A Lead-up to League Organization ..... *Ruth M. Dick* 41
Bowling Research ..... Revised by *Kathleen Black* 43
Bowling Bibliography ..... Revised by *Karen L. Miller* 46
Bowling Visual Aids ..... Revised by *Karen L. Miller* 48
Collegiate Division of the WIBC 51
Official Duckpin Rules 53
Scoring the Duckpin Game 63
Tenpin Rules and Regulations 66
AJBC Rules Covering Organization of Leagues 72

FENCING

NAGWS Fencing Committees 77
Be Active in Fencing 78
The Amateur Fencers League of America ..... *Joan Kowalewski* 79
The National Fencing Coaches Association of America (NFCAA) and the United States Academy of Arms (USAA) ..... *A. John Geraci* 81
The National Intercollegiate Women's Fencing Association ..... *Joan Kowalewski* 84
Women's Western Intercollegiate Fencing Conference ..... *Jo Redmon* 86
Fencing Class Formations ..... *Richard J. Gradkowski* 88
Fencing Task Cards Complement Command Teaching ..... *Sandra L. Jablonski* and *Nancy M. Sell* 93

Trouble Shooting on the Strip .... *Daniel R. Dechaine, Jr* 96
Utilizing the Universal Gym for Improving Upper
Body Strength in Women Fencers .... *Joan Kowalewski* 103
A Self-Help Approach to the Development of
Fencing Instructors ..... *Walter G. Green III* 107
Anaerobic Conditioning for the
Varsity Fencer ..... *Natalie Goodhartz* 111
Combat Analysis and Strategy ..... *Patricia A. Clapp* 114
Organizing and Maintaining an Interscholastic
Fencing Team ..... *Patricia A. Clapp* 122
Fencing Visual Aids ..... *Suzanne Tyler* 127
Fencing Bibliography ..... *Suzanne Tyler* 129
Technical Rules of Fencing ... edited by *Denise O'Connor* 131
Techniques and Procedures for
Officiating Women's Foil ..... *Denise O'Connor* 153

NATIONAL ASSOCIATION FOR GIRLS AND WOMEN IN SPORT

The National Association for Girls and Women in Sport is a nonprofit, educational organization designed to serve the needs of participants, teachers, coaches, leaders and administrators in sports programs for girls and women. It is one of seven associations of the American Alliance for Health, Physical Education, and Recreation.

PURPOSE

The purpose of the National Association for Girls and Women in Sport is to foster the development of sports programs for the enrichment of the life of the participant

BELIEFS

The National Association for Girls and Women in Sport believes that:

Sports are an integral part of the culture in which we live.

Sports programs are a part of the total educational experience of the participant when conducted in educational institutions.

Opportunities for instruction and participation in sports appropriate to her skill level should be included in the experience of every girl.

Sports skills and sports participation are valuable social and recreational tools which may be used to enrich the lives of women in our society.

Competition and cooperation may be demonstrated in all sports programs, although the type and intensity of the competition and cooperation will vary with the degree or level of skill of the participants.

An understanding of the relationship between competition and cooperation and the utilization of both within the accepted framework of our society is one of the desirable outcomes of sports participation.

Physical activity is important in the maintenance of the general health of the participant.

Participation in sports contributes to the development of self-confidence and to the establishment of desirable interpersonal relationships.

FUNCTIONS

The National Association for Girls and Women in Sport promotes desirable sports programs through:

1. Formulating and publicizing guiding principles and standards for the administrator, leader, official, and player.
2. Publishing and interpreting rules governing sports for girls and women.
3. Providing the means for training, evaluating, and rating officials.
4. Disseminating information on the conduct of girls and women's sports.
5. Stimulating, evaluating, and disseminating research in the field of girls and women's sports.
6. Cooperating with allied groups interested in girls and women's sports in order to formulate policies and rules that affect the conduct of women's sports.
7. Providing opportunities for the development of leadership among girls and women for the conduct of their sports programs.

STANDARDS IN SPORTS FOR GIRLS AND WOMEN

Standards in sports activities for girls and women should be based upon the following:

1. Sports activities for girls and women should be taught, coached, and officiated by qualified women whenever and wherever possible.
2. Programs should provide every girl with a wide variety of activities.
3. The results of competition should be judged in terms of *benefits to the participants* rather than by the winning of championships or the athletic or commercial advantage to schools or organizations.

Health and Safety Standards for Players

Careful supervision of the health of all players must be provided by —

1. An examination by a qualified physician
2. Written permission by a qualified physician after serious illness or injury
3. Removal of players when they are injured or overfatigued or show signs of emotional instability
4. A healthful, safe, and sanitary environment for sports activity
5. Limitation of competition to a geographical area which will permit players to return at reasonable hours; provision of safe transportation.

General Policies

1. Select the members of all teams so that they play against those of approximately the same ability and maturity.
2. Arrange the schedule of games and practices so as not to place demands on the team or player which would jeopardize the educational objectives of the comprehensive sports program.
3. Discourage any girl from practicing with, or playing with, a team for more than one group while competing in that sport during the same sport season.
4. Promote social events in connection with all forms of competition.

SOURCES OF INFORMATION AND SERVICE

All requests for information about services should be addressed to: Executive Secretary, National Association for Girls and Women in Sport (NAGWS), AAHPER, 1201 - 16th Street, N.W., Washington, D.C. 20036.

NATIONAL COACHES COUNCIL

The National Coaches Council was formed by the NAGWS to:

(1) provide a channel of direct communication among coaches at all educational levels
(2) assist in the formulation and dissemination of guiding principles, standards and policies for conducting competitive sports programs for girls and women
(3) keep members informed of current coaching techniques and trends
(4) sponsor clinics and conferences in sports and coaching skills
(5) provide input from coaches to USCSC sports committees and representative assembly
(6) promote cooperative efforts with other sports-centered organizations
(7) provide a united body for positive political action in the realm of girls' and women's athletics.

Academies for 10 sports have been established. (Note the application blank for specific listings.) Membership in each Academy is open to any coach of girls or women's sports or any interested person. Annual dues for AAHPER members are $10.00 per Academy. Non-AAHPER members pay $20.00 annually for membership in one sport Academy and $10.00 for each additional Academy membership desired. The $10.00 non-membership fee may be applied at any time toward AAHPER membership.

Get involved . . . JOIN NOW.

Sports Academies of the NATIONAL COACHES COUNCIL

National Association for Girls and Women in Sport: AAHPER
1201 16th St., NW, Washington, DC 20036

NAME _____
last first initial

ADDRESS _____
street

_____
city state zip

FOR OFFICE USE:

DT:____ AMT:____
CK:_____

AAHPER MEMBERS: Membership number as it appears on your journal label: _____

Teaching/Coaching level (please check): College___ Jr. College___ High School___ Jr. High___
Elementary___ Other_____

Please check the Academies you wish to join:* ☐ Badminton ☐ Basketball ☐ Field Hockey
☐ Gymnastics ☐ Softball ☐ Swimming/Diving ☐ Synchronized Swimming
☐ Tennis ☐ Track & Field ☐ Volleyball

I am willing to serve on an Academy committee: ☐

*AAHPER members: $10.00 per Academy. Non-AAHPER members: $20.00 for one Academy; $10.00 each additional Academy. $10.00 non-membership fee may be applied at any time toward AAHPER membership.

Please send AAHPER membership information: ____yes ____no

NAGWS SPORTS GUIDES COMMITTEES INTEREST INDICATOR

The NAGWS Sport Guide Committee is endeavoring to broaden its base of personnel and to strengthen services to *Guide* readers. The purpose of this form is to offer readers an opportunity to join us in meeting this need. Please complete this form and send it to the Associate Guide Coordinator-elect, Pat Sherman, Univ. of Wisconsin, River Falls, WI 54022.

Name _____

Professional Address _____

City _____ State _____ ZIP Code _____

1. Check the Sport Committee(s) which would be of interest to you:

__Aquatics	__Fencing	__Soccer
__Archery	__Field Hockey	__Softball
__Badminton	__Flag Football	__Speedball
__Basketball	__Golf	__Squash
__Bowling	__Gymnastics	__Synchronized Swimming
__Competitive Swimming	__Lacrosse	__Team Handball
__Cross-country Track	__Orienteering	__Tennis
__Cross-country Skiing	__Racquetball	__Track and Field
__Diving	__Skiing	__Volleyball
		__Water Polo

2. Would you like to serve as member of a Sports Guide Committee of your interest?* ____Yes ____No
3. Would you consider submitting an article to a Guide Committee as a prospective author? ____Yes ____No
   Possible topic or title _____
4. Can you suggest topics for articles which you would like to have included in future *Guides*? (Please indicate sport.) _____
   _____
5. Are there others whom you would recommend for consideration as possible committee members or authors? Please indicate below. (Use additional paper, if necessary.)

Name _____ Sport(s) _____

Professional Address _____

City _____ State _____ Zip Code _____

Sports Committee Member ☐ Prospective Author ☐ (Check one)

*You may serve on only one Sport Guide Committee at a time.

NAGWS BOWLING COMMITTEE[1]
1975-1977

CLARE M. ALBOM, *Chairperson,* Town of Vernon Schools, Rockville, CT 06066
JOYCE CURTIS, *Past Chairperson,* Abilene Christian College, Abilene, TX 79601
RUTH DICK, Route 2, Box 363, Lake Villa, IL 60046
MARGOT BELDON, 710 University Drive, State College, PA 16802
AGNES STILLMAN, Russell Sage College, Troy, NY 12180
CHARLENE AGNE, Hanover College, Hanover, IN 47243
SUSAN WERNICK, 2028 Brooks Drive, Suitland, MD 20023
KAREN MILLER, Rockville High School, Rockville, CT 06066
NELMA WILLIAMS, Rogers High School, Rogers, AR 72756

NAGWS BOWLING COMMITTEE
1977-1979

ALICE GANSEL, *Chairperson,* University of Wisconsin, Eau Claire, WI 54701

[1] Current *Guide* material was prepared by 1975-1977 committee; material for the 1977-1979 *Guide* will be prepared by the 1977-1979 committee.

The Varsity Bowling Team

MARGOT BELDON

Margot Beldon, an instructor at Pennsylvania State University, is the varsity bowling coach and instructs beginning and intermediate classes as well. She is a graduate of Hanover College and received her M.A. degree at Ohio State University.

The number of varsity bowling teams has increased and the level of competition, in both high school and college, has become more sophisticated. Instructors of bowling are being asked to coach competitive teams when they lack the experience and confidence to handle the situation well. The purpose in this article is to share some suggestions for practices and motivation that may be helpful to those engaged in the coaching of varsity teams.

The size of a team may range comfortably from 10 to 15 people and the minimum time of group practice per week would probably be four hours. Individual lessons, where time and scheduling permit, could be worked in at other times during the week.

The number of lanes available for practice will affect the kind of practice that will work best. Generally, eight lanes for a team of 15 should be more than adequate and four lanes would be slightly restricting.

Suggestions for Practice

1. Challenges between the first and second teams: Use a three-game series total or a point system. Where there is quite a difference between the averages of the first and second team, you may want to use a handicap system.

2. Open individual challenges: A person must challenge or be challenged and bowl three games for total pins.

3. Ladder challenges: The order could be set up according to practice averages or competitive averages. Those with the best averages could be placed at the top, but a more interesting challenge comes when the order is reversed. Those with the lowest beginning averages get a psychological boost from this placement and also have time to improve their averages before being challenged by the better bowlers. Bowlers can challenge the persons directly above or two places above themselves. The total pins of two or three games could be used to determine the winners of each challenge.

4. Doubles challenges: When the bowlers are allowed to choose their own partners, the coach becomes more aware of the competitive personalities of the bowlers. By having partners changed during different practices, the coach learns which bowlers are most

compatible during competition, although this would hardly be the only factor to consider when deciding who will bowl. Sometimes it is good to assign partners ahead of time to get the bowlers' reactions and to see how they adjust to situations they have not chosen. Again, two or three games might be used for the challenge.

5. Beating your own score: This provides a change of pace – a fun challenge where the bowlers know that if they can beat their highest game or highest three-game series they will win something like an ice cream cone, candy bar, or other small award.

6. Outside competition: In many communities there are a number of good bowlers who would enjoy putting their forces together as an all-star team to meet the challenge of the varsity team. This might build into a positive public relations venture for the town and for the school, and it might also bring some needed publicity to the sport of bowling.

Another group that might be interested in a collegiate challenge would be the senior citizen leagues of the local bowling establishments. These individuals are often excellent bowlers and offer some very good competition for the varsity teams.

7. Faculty challenge: Faculty-student competitions are always popular and draw student and faculty support if they are well advertised. These challenges, which improve morale and public relations, also offer the teams a good level of competition.

8. Individual lessons: Some individual help can always be given during the group practices, but separate, individual lessons can be beneficial in developing greater skill as well as a better rapport with each team member. Without feeling the pressure of time, averages and other team members, each bowler has the opportunity to concentrate on weak areas and experiment with new ideas.

9. Developing specific spare and strike lines: These practices should be recorded on scoresheets so that consistency can be objectively observed.

a. 7-10 pin practice – On the first ball, attempt to pick up only the 7 pin, and on the second ball only the 10 pin. There is definitely a feeling of satisfaction in having enough control to leave all pins standing except for the 7 and 10.

b. 2-4, 3-6 practice – This is more difficult to control, but each bowler should still be able to roll the ball to the right place even if the 3 to 6 pins are not standing for the second ball.

c. First ball average – Either during a practice where scores are not kept or during games, the number of pins knocked down on the first ball of each frame should be added up and divided by the number of first balls rolled.

d. Determining light and heavy hits – After each first ball, the bowler writes down the number of each pin left standing.

Over a period of time, a pattern will probably become apparent so that the bowler can take specific steps to improving his line or angle.

10. Video-tape recorder: This can be a valuable aid to some bowlers. Ideally, it should allow for slow action so that the bowler's technique can be analyzed adequately. With the camera 15 to 20 feet down the alley, a good front shot of the bowler as he or she approaches the foul line may be obtained. Rolling four or five balls normally will give the bowler enough of a picture to evaluate the bowler's consistency. After making adjustments, the bowler can be videotaped again to check for corrections. Although side views and/or shots from behind the bowler may also prove to be informative, the front view seems to give the bowler the greatest amount of feedback.

Time is a problem when using videotape, but if it benefits the bowlers, it is worth the effort of using it.

11. Instructional films: There are a few good intermediate and advanced level films and film strips available that may contribute to increase the knowledge of techniques for the bowlers. The National Bowling Council is one organization that has worked toward updating the audiovisual aids for bowling.

Although there are many aids for the beginning level, there are few for the intermediate to advanced levels of skill.

12. Local professional bowlers: Where time permits, professional and/or good bowlers would be more than willing to offer their help and/or advice to varsity bowlers. This could be a healthy, educational experience for both bowlers and coach and could probably be arranged easily.

Motivational Techniques

It has been said that 80 percent of bowling is psychological. With more advanced bowlers especially this psychological factor can really make the difference between winners and "tenth-frame chokers."

There are many ways to motivate your bowlers. Some creativity is necessary and an awareness and sensitivity to the personalities and needs of the members of your team. Here are a few ideas:

1. Post practice and competitive averages weekly.
2. For rolling a 250 or higher game, award a steak dinner.
3. On a particular day, award pieces of candy for every strike rolled.
4. Use colored pins and whenever the colored pin shows up as the head pin and the bowler gets a strike, award some small prize.
5. Keep a record of the most strikes, spares, marks and splits in a game for a period of time and give small awards to the winners.

6. Make or purchase something that could be used as a Travelling Trophy. During competition, whoever has the highest first game, highest series, etc., would win the Trophy until the next competition when it would be open again. Something like this might work well if your team has a difficult time starting off strongly in a match.

One of the most challenging aspects of working with a varsity team is influencing the psychology of the competitors. Although bowling is an individual game, it does inspire team competition and can be a very rewarding experience for those who want to be part of the program.

The level of competition for our varsity teams is improving rapidly as a result of growing interest in the game and the strong junior bowling programs around the country. These programs need to be supported to give our young people the opportunity to develop their potentials and to use their skills.

Some Resources for Intermediate and Advanced Bowling

American Bowling Congress. *Bowlers Guide.* Greendale, WI: The Congress, Publications Dept., 1974.

Barsandi, Rena. *Bowling.* Boston: Allyn and Bacon, Inc., 1974.

Bellisimo, Lan. *The Bowler's Manual.* 3rd ed. Englewood Cliffs, NJ: Prentice-Hall Inc., 1975.

Carter, Don. *Bowling the Pro Way.* New York: The Viking Press, 1975.

Mackey, Richard T. *Bowling.* 2d ed. Palo Alto, CA: National Press Books, 1974.

National Bowling Council's Education Service Center. *The Bowling Instructor's Handbook.* Washington, DC: The Council, 1974.

National Bowling Council. *Instructor's Manual (Learn To Bowl).* Washington, DC: The Council, 1973.

Pezzano, Church. *Professional Bowlers Association Guide to Better Bowling.* New York: Simon and Schuster, 1974.

Sullivan, George. *Bowling Secrets of The Pros.* Garden City, NY: Doubleday and Company, Inc., 1968.

Welu, Billy. *Add 30 Pins to Your Bowling Score.* New York: Crown Publishers, Inc., 1972.

Strike Tradition — Spare Creativity

SUSAN E. WERNICK

Susan E. Wernick, a motor development specialist, received her B.S. and M.A. in special physical education from the University of Connecticut. In the Prince George's Public Schools System, she organized and conducted a bowling program for the orthopedically handicapped students at the Stephen Decatur Junior High School in Clinton, Md., and the Holly Park Elementary school at College Park, Md.

In reviewing several teaching guides for bowling, it becomes obvious that similar techniques for teaching basic bowling skills are often repeated – often enough so that the teaching techniques take on the qualities of a recipe:

Traditional Bowling

Ingredients

A space in which to bowl (gymnasium, classroom, bowling alley, etc.)
Students
Bowling balls or facsimile
Bowling pins or facsimile

Preparation

1. Begin by using adequate space. Add students.
2. Combine hand-eye coordination and arm strength to the following in order to teach swing and release: OUT – DOWN – BACK – SWING – RELEASE – FOLLOW THROUGH.
3. When swing and release are well done, add the approach (number of steps will depend upon the technique followed).
4. If the above steps have been followed carefully, with sufficient practice, the recipe is completed and bowlers have been developed!

The directions are simple and easily followed. But, what happens when the ingredients have to be altered? More specifically, what if the students are children whose hands are too rigid to grasp a bowling ball, whose spastic arm movements limit swinging motions and whose paralyzed legs make it impossible to perform the approach? In other words, how do orthopedically handicapped

children fit the recipe? The answer, *strike tradition — spare creativity!*

Although a physical disability does limit movement, it does not prevent those afflicted from learning to bowl. Orthopedically handicapped children can experience the fun of bowling and the following teaching techniques and activities have been created to accomplish this purpose.

Lead Up Skills and Activities

Activity I (Figure 1)

Equipment needed

Four milk cartons, four fleece or yarn balls and one large wedge mat

Objectives

1. To provide activities through which the children can experience immediate success.
2. To develop and enhance hand-eye coordination so that they can learn the skills related to bowling.
3. To allow children an opportunity to participate in activities that fall within their range of mobility.

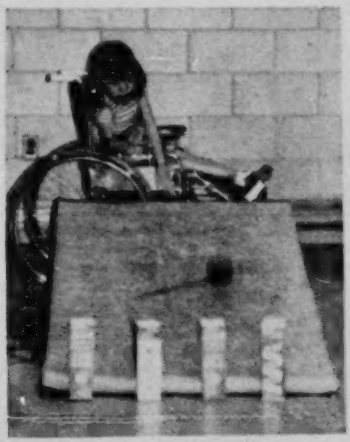


Figure 1.

The activity

Place the wedge mat in an open area of the room with four milk cartons set along its apex. Position the child behind the base of the mat (considering best mobility and range of motion). Given four fleece balls and rolling only one ball each time, the object is to knock down as many cartons as possible during the four turns.

Activity II (Figure 2 – Progression of skills learned in Activity I)

Equipment needed

Bowling ramps, small rubber game balls, milk cartons (Bowling ramps can be purchased commercially or can be homemade such as those in Figure 2 which were constructed from scrap lumber (frame) and masonite (ramp)).

Objectives

1. To provide equipment, both commercial and homemade, which assists children in performing bowling skills.
2. To help these children learn a lifetime sport in which they can participate now and in the future with peers and family.

Figure 2.

The activity

Place three milk cartons approximately 10 to 15 feet from the apex of the ramp. Position child behind the ramp (considering best mobility and range of motion). Child must determine if the ramp is positioned such that the released ball will roll to the cartons, knocking them down. If the ramp is not positioned correctly, ask the child how it should be adjusted – right, left? (If the child has good use of upper extremities, allow him to position ramp. If not, let the child determine correct position and the teacher can move the ramp.)

Given two balls and rolling only one each time, the object is to knock down the cartons.

Activity III (Figures 3 and 4 – Progression of skills learned in Activities I and II)

Equipment needed

Bowling ramps, small rubber game balls or gymnasium bowling balls, plastic bowling pins

Objectives

1. To learn the positions of the bowling pins (pindeck) and the common terms associated with bowling (strike-spare-split) so that she/he can identify as a spectator or become familiar with these terms as a participant.
2. To be able to determine where to position the ramp in order to bowl a strike, complete a spare, etc., so that she/he learns that part of their success is determined by the position of the ramp.

Figure 3.

The activity

Mark a pin deck on the floor using tape or any material that is clearly visible and will adhere to the floor. Place ramp 15 to 20 feet away from and in front of the pin deck.

Using just three pins, place them in varying combinations on the pin deck demonstrating where to aim in order to bowl a strike, complete a spare, etc. Given two balls and rolling only one each time, the object is to knock down the three pins.

Activity IV – The Game of Bowling

Equipment needed

Bowling ramps, rubber game balls or gymnasium bowling balls, plastic bowling pins. As many pin decks as needed should also be marked on the floor.

Objectives

1. To apply the previously learned skills to the game of bowling so that the students can move to a bowling center.
2. To learn scoring so that depending upon their abilities, they can utilize official scoring rules or a method more appropriate to them.

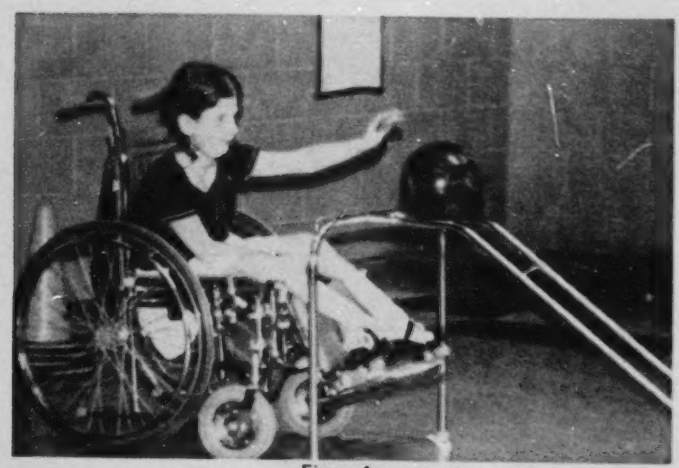


Figure 4.

The activity

Design the room such that several bowling lanes can be used at one time. Pin decks should be marked for each lane with a ramp set 15 to 20 feet away from and in front of the deck. Two balls are given to each group and all ten pins will be used.

Demonstrate and explain the method of scoring to be used (each lane should have a score sheet and pencils).

Using a rotating method, let each child take her/his turn bowling and setting pins if she/he is able. It is best if at least one mobile child is placed at each lane to help with pin setting and retrieving balls since it is not feasible for the teacher to accommodate all groups.

The students bowl and keep score. The game ends when the number of turns designated on the score sheet is completed.

The activities presented here have been tried and successfully accomplished with orthopedically handicapped children. Why then cannot a total program in physical education be developed for these exceptional children? After all, if a good cook can adapt a recipe that lacks certain ingredients, shouldn't we, as good physical educators, adapt to other ingredients? For a program is only complete when *all* children are given the opportunity to become involved.

"Trust Your Bowling Ball"

AGNES C. STILLMAN

Agnes C. Stillman, an assistant professor of physical education at Russell Sage College, Troy, N.Y., is a graduate of the University of Massachusetts and received her M.S. from Smith College. She teaches bowling in the Service and Majors programs and participated in city and state women's bowling tournaments.

Good bowling is more than chance or luck. It is the result of practice and knowledge that enables you to "trust your ball." You can make the following suggestions to your students to help them develop that trust:

Learn the Path of Ball

Be consistent in your stance, approach and release of the ball. Make a conscious effort to do everything exactly the same every time. When you become consistent at your end of the lane, the path of your ball will also become consistent.

Develop and practice only one delivery. If you roll a hook on the first ball, but a straight ball for the leave, you must perfect two deliveries. Not only would this take twice as much time and effort, but also it would develop doubt instead of trust. Each time you missed with one delivery you would think that perhaps you would have done better with the other.

Teacher aid: Prepare a "path of ball" sheet on which the lane is drawn several times. Using one lane for each delivery, the bowler's partner draws the path of the ball – from the foul line, over the arrow, down to point of contact with the pins. Consistency, or inconsistency, can certainly be seen after 10 deliveries.

Teacher aid: Make a small cardboard diagram of the lane. Using a pipe cleaner, have the bowler reconstruct the path of the ball on the lane. This can serve several purposes: It forces the student to watch the ball; it makes the student more aware of what the ball is doing; it helps to decide where to stand and where to aim for the second ball.

Decide on Method of Aiming

It is as important to be consistent with your eyes as with the rest of your body movements. In pin bowling your eyes should concentrate on the pins at which you are aiming. In spot bowling your eyes should focus on the arrow or dot (just ahead of the foul line) over which your ball should roll.

Spot bowling is the better method, especially for a hook or curve delivery, for the following reasons: (1) The arrow or dot is much closer to you and therefore much easier to hit accurately. (2) The proper arrow or dot will position the path of your ball to allow for the proper amount of hook or curve. The path of a hook delivery goes over the second arrow from the channel and at the last second hooks into the #1-3 pocket. The ball must therefore go down the side of the lane even though the pocket is near the middle. If you look at the #1-3 pocket at any time before the follow-through you will have an unconscious tendency to pull your arm – and thus the ball – toward the center just as you release the ball. In other words, you will tend to "help the ball" instead of to trust it.

Learn Angles for Converting Spares

Change your starting position rather than your footwork or delivery. The *Bowlers Guide*, published by the American Bowling Congress, recommends the "3-6-9 Spare System."[1] Very simply, this system refers to the number of boards you should move the instep of your sliding foot to the right or left of your strike position. Move to the right if pins are to the left of the headpin, and vice versa. Then do everything exactly the same, including aiming over your strike spot.

If the 2 or 3 pin is up, move three boards; if the 4 or 6 pin is up, move six boards; if the 7 or 10 pin is up, move nine boards. This is a simplified explanation, but it should show you that even with so many possible combinations of spare or split leaves, only seven positions are necessarily learned.

Teacher aid: This is another opportunity to use the pipe-cleaner aid to show the change of angle by sideward movement. It also can show the importance and value of the cross-lane concept for converting spares. With the pipe cleaner establish the ball path for a strike; then shift the pipe cleaner until it contacts the pins which remain standing. Make sure it still goes over the strike arrow.

Recognize the Pins by Number and by Relationship

Your position for the second ball of the frame is determined by the pins still standing and by their relationship to one another.

Teacher aid: Provide a small accurate diagram of the pin set-up so the students can actually point to the pins, see their relationship, and reinforce the learning of the numbers. Mount the diagram on heavy cardboard so it will survive frequent handling.

---

[1] *Bowlers Guide*. Greendale, WI: American Bowling Congress. pp. 28-31.

Learn the Action of the Pins, One on Another

A perfect strike ball contacts only four pins – 1, 3, 5, 9. The 1 falls into the 2 which falls into 4 which falls into 7. The 3 falls into 6 which falls into 10. The 5 knocks down 8. It is necessary to know the responsibility and action of each pin because this knowledge, coupled with the knowledge of the pins left standing will aid you in determining your starting position for the second ball.

For instance, if 1-3-8 are still standing, the most obvious spot for placement of the second ball is the 1-3 pocket again. However, 8 is also standing. The 5, which is no longer standing, is responsible for knocking down 8. Therefore, the 1-3 pocket is *not* the best spot for placement of the ball since neither the pins nor the ball can knock down 8. By aiming instead for the 1-2 pocket, the ball will hit the left side of 1 and continue on to directly hit 8. The 1 will knock down 3.

Teacher aid: This is a verbal one. Constantly ask your students, and train them to ask each other, the following questions:

1. Which pins are still standing?
2. Which pins must be directly hit by the ball?
3. Which pins must or may be knocked down by other pins?
4. Which side of the pin must be hit?
5. What angle is necessary to convert the leave?

This list of questions may have more value than you realize. The students who are watching must concentrate on bowling. The bowler must concentrate then on the next move.

Summary

1. Learn the path of your ball.
2. Decide upon and develop one method of aiming.
3. Learn the angles for converting spares.
4. Recognize the pins by number and relationship.
5. Learn the action of the pins on one another.

Teacher aids:

1. Path-of-ball sheet
2. Lane diagram with pipe cleaners
3. Accurate diagram of pin set-up
4. List of questions.

Practice of these suggestions and use of the aids should increase your students' skill, interest and enjoyment in bowling. And you can say to your students, "Trust your bowling ball!"

A Creative Approach to Testing

NELMA WILLIAMS

Nelma Williams, head of girls' physical education at Rogers High School, Rogers, Ark., received her B.S.E. from Arkansas Tech. She served as a master bowling clinician for the Life-Time Sports Education Project and conducted workshops throughout the United States and Canada. She has also conducted national, state and local in-service workshops.

Physical education teachers occasionally need a suggestion or idea on an effective way to measure what students know or have learned. The most common way of evaluating bowlers is by objective and short answer questions. If you are one of those looking for a different method, you will enjoy trying the sample skill test (multiple choice) and the crossword puzzle (Figure 1). Students love to use the crossword puzzle as homework to help prepare for other types of tests.

Bowling Skill Sample Test

Name	Left-Handed Right-Handed
Point of Origin 2 points	Distance from foul line? _____ ft.
STANCE 4 points	Feet: Straight to intended line? *yes, no* Weight distribution: *mostly right, mostly left.* Knees: *right bent, left bent, straight.* Ball held: *chest high, waist high, knee high.* Alignment of ball: *right of shoulder, center, in line with shoulder.* Weight of ball: *right hand, left hand, evenly.* Elbow: *tucked into hip, away from hip.* Wrist: *straight, fairly straight, bent.* Thumb: *relative position on clock*

BODY MOVEMENT 12 points	Footwork: number of steps_____. length of steps: *long, short, moderate.* Tempo: *irregular, fast, slow, heel-toe, shuffle.* Armswing: *parallel, bent elbow, outside, inside.* Shoulders: *right angle to target, facing left, facing right.* Hips: *right angle to target, facing left, facing right.* Push-away: *long, high, low, late, early.* Backswing: *waist high, shoulder level.* Balance: Arm and foot arrive at foul line: *together, arm first, foot first.* Alignment of feet: *pointed at target, right of target, left of target.* Knee Bend: *good, too much, not enough.*
SPOT BOWLING 4 points	Demonstrate foot position and correct target for: Strike, 7 pin spare, 10 pin spare. Roll a ball over correct target for the *three* above.
COMMON ERRORS 4 points	Have student describe correction for: Being ahead of the ball on the approach. Describe and illustrate position of hand to correct: Ball which hooks too much. Ball which hooks too little. Ball which backs up. Demonstrate all three type balls mentioned above.
PROFICIENCY 4 points	Bowl a game. Score of game_____. Tallied own score? *yes, no*
30 points	Total points scored_____

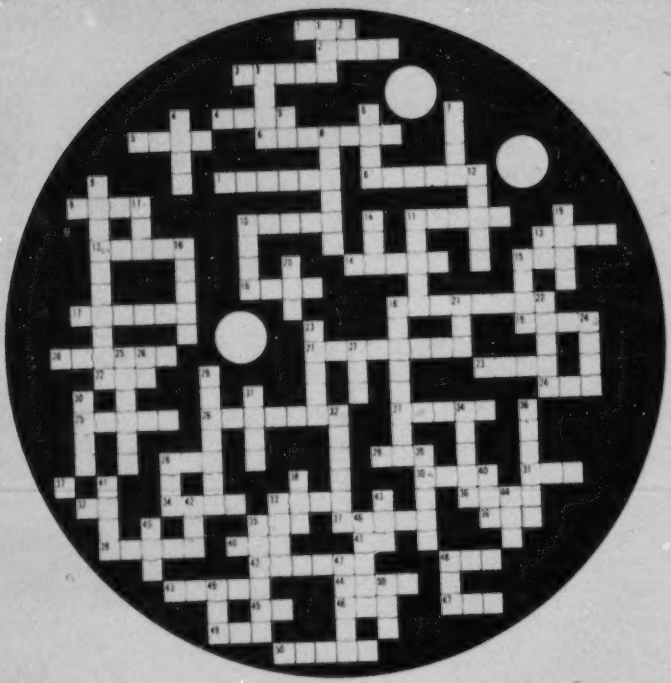


Figure 1. Bowling Crossword Puzzle.

Down

1. Level which you should reach on follow-through.
2. To refuse.
3. A ball which will break to the left.
4. A piece of equipment.
5. Any of several Pacific trees or shrubs of the lily family.
6. To leave a pin standing in a frame.

Across

1. Number of pins in a full set.
2. Pronoun indicating possession.
3. Pin located to right of head pin.
4. A method of aiming.
5. Distance between thumb and finger holes.
6. Number 5 pin (2 words).
7. Place to hit for strike.

Down continued

7. A means of communicating.
8. A groove located on either side of lane.
9. Symbol which describes how fingers are placed in the ball.
10. To go beyond foul line.
11. Motion made with left foot on fourth step.
12. Fail to pick up all pins in a frame.
13. A girl's name.
14. To hit a pin lightly.
15. Number of steps recommended for your approach.
16. An item of dress important for bowling.
17. A boy's name.
18. Motion made with arms on first step.
19. Number of pins knocked down if one pin is left.
20. Number of balls rolled in a frame if you get a strike.
21. A female deer.
22. A ball rolled into pin deck causing pins to hit other pins.
23. The way thumb should fit.
24. Refers to Number 1 pin.
25. A synonym for bowler.
26. (suffix) small.
27. Abbreviation bowler's organization.
28. Abbreviation professional athlete.
29. Purpose of left hand on approach.
30. Position of body to target.
31. Split which can be picked up by rolling ball between pins.

Across continued

8. All pins down with first ball.
9. Strike or spare in a frame.
10. Section of a scoresheet.
11. All pins down with two balls.
12. Extra ball in the 10th frame.
13. Ten frames.
14. Two or more pins left with a pin missing between them.
15. Doing something enjoyable.
16. Area between foul line and pin deck.
17. Organized group of bowlers.
18. Motion made with arm before releasing the ball.
19. Wealthy.
20. Three strikes in succession.
21. Situated on the other side.
22. To put in a certain place.
23. Part of shoe used to stop ball.
24. A vivid color.
25. Referring to bowling establishment.
26. Left shoe sole.
27. Level to hold ball.
28. A piece of equipment.
29. Building on a school campus.
30. To have been indebted.
31. Position of thumb (left-handed).
32. In contact with upper surface.
33. King pin.
34. Fail to mark in a frame.
35. Small section of a score sheet.
36. To hit a pin head on.

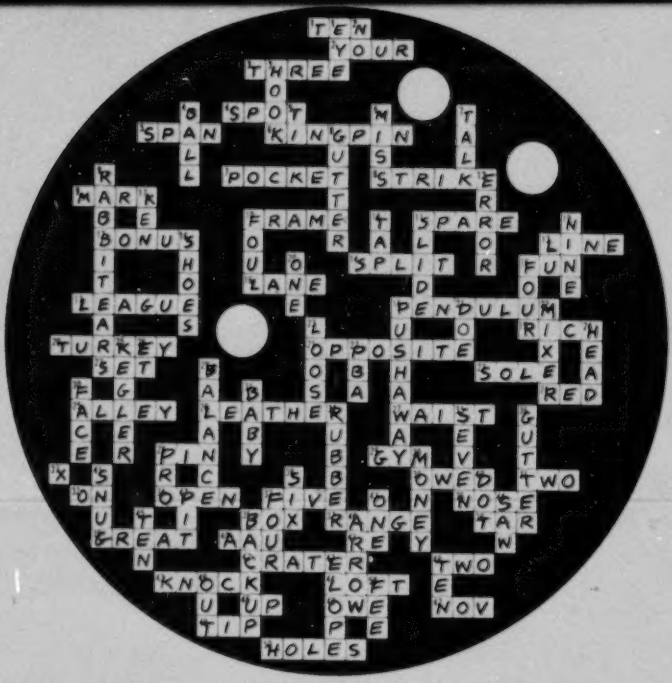
Down continued

32. Composition of sole of shoe.
33. Number of players on a team.
34. Pin located on left side of back row.
35. A ball which breaks to right.
36. Represented by a "G".
37. Symbol used for strike.
38. Pin located on a diagonal line between 3 and 10.
39. A coin or notes.
40. Range finder on the approach.
41. Way fingers should fit in ball.
42. Area where pins fall when hit.
43. The push-away step.
44. Cutting instrument.
45. Pin located on right side.
46. Range finder used in spot bowling.
47. To run away with a lover.
48. Weight of a bowling ball.
49. Direction ball goes on Number 1 step.
50. A payment.

Across continued

37. Dots and arrows on the lane.
38. A black, sticky asphalt.
39. Very large or big.
40. Abbreviation of athletic organization.
41. Second note of a musical scale.
42. A pit resulting from an explosion of a mine.
43. To strike one pin against another.
44. To toss ball out on lane.
45. Opposite of down.
46. To be indebted.
47. Abbreviation of the 11th month.
48. Number of balls allowed per frame.
49. A small gift of money for services rendered.
50. Cavities drilled in a bowling ball.

See page 32 for answers to puzzle.


TEN
YOUR
THREE
SPOT
SPAN
KINGPIN
POCKET
STRIKE
MARK
FRAME
SPARE
BONUS
LINE
SPLIT
FUN
LANE
LEAGUE
PENDULUM
TURKEY
OPPOSITE
SET
SOLE
RED
ALLEY
LEATHER
WAIST
PIN
GYM
OWED
TWO
OPEN
FIVE
NOSE
BOX
RANGE
TAR
GREAT
CRATER
TWO
KNOCK
LOFT
UP
OWE
NOV
TIP
HOLES

Teaching Aid for Spares and Splits

CHARLENE AGNE

Charlene Agne has taught bowling at the college and high school level for several years. She is at present NAGWS Bowling Chairman for Indiana. She was 1972 city of Madison Champion in Singles, All Events, Hi Game, and Hi Series Actual and 1974 Hi Series Actual City Champ. For the past three years she has led all women bowlers in her area with high averages (in the 170s). She has her B.A. degree from Concordia Teachers College, River Forest, Ill. and her M.A. degree from University of Northern Colorado in Greeley, and is presently teaching physical education and health at Hanover College, Hanover, Indiana.

The main objective in bowling is to knock down all the pins with the first ball thrown each frame. To achieve this goal, however, consistency in force production and directional accuracy are necessary frame after frame. This consistency and accuracy is difficult, to say the least, for professional bowlers to achieve and maintain, much less for beginners to acquire. The knowledge and ability to convert spares and splits is essential, therefore, to improving one's performance.

Setting up situations for students to practice spares and splits is not an easy procedure. Generally, students must roll for a certain combination of pins from within the full set of 10. Ignoring the pins that have theoretically fallen with the first roll is difficult for any bowler and especially for beginners. Some bowling establishments can fix their machines so that specific spares can be set up manually without a full set appearing each time. This is a laborious procedure, however, and not practical when dealing with a large group of students.

In order to help students more effectively to understand spare and split conversion and then to execute the conversion, I have devised a teaching aid that may be used in one or more of the following ways by bowling teachers.

As an assignment sheet

A. Written practice sheet whereby the student decides where the ball needs to contact the shaded pins and places an arrow pointing toward the contact region (see Figure 1, A).

B. The student indicates where on the approach she/he should stand to be in the correct spare (split) angle (either middle, left of center or right of center (see Figure 1, B).

C. The student identifies the shaded pins as either a spare or a split (see Figure 1, C).

D. The student identifies the shaded pins by their proper number (see Figure 1, D).

E. The student after working out the spare or split situation on paper physically tries out her/his decision on the lanes. The student may make corrections under the instructor's observation, provided errors are in strategy rather than performance execution.

As a quiz or test sheet

The instructor could use this teaching aid sheet as a quiz sheet in itself or as part of a written midterm or final exam.

As a pretest for intermediate or advanced bowlers

This aid could be used as a pretest to judge the bowlers' knowledge of recommended procedures and then to compare their knowledge with their practical application of spare and split conversions on the lanes. The device is appropriate for a class of intermediate and/or advanced bowlers, to have a starting point for each student, or as a means of assigning students to a class suitable to their skill level.

As a variation of a programmed learning pamphlet

The instructor would set up examples of each of the types of spare angle conversions and would lead the student to choose the correct angle for the spare given. Spares are either of the cross-angle type, for example, where the 7 pin is converted by starting right of center, while the 10 pin is converted by starting left of center. Then there are the middle or strike ball spares like the 5 pin or the 5-8 pins. The instructor would also set up examples of the three types of split conversions – the slide over, the in-between and the impossible-except-with-lots-of-luck category. The student would then be led to match the shaded pins' example with the proper classification.

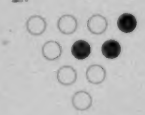
Such a teaching aid illustrates a few of the most common spare and split situations and it can be adapted to meet specific class needs. Yet it is only an aid, and students learn correct spare and split conversion techniques through the concern, interest, and know-how of good instructors. For a bowler to move from the ranks of beginners, the key is spare conversion. Anyone may be lucky enought at times to get a strike without having much knowledge or practice, but *spare* and *split conversion requires knowledge and practice.* This teaching aid will help students gain that knowledge and their practice will be more meaningful!

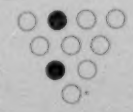
Name_____
Right or Left Handed Bowler? (circle)

A. Draw an arrow indicating where the ball should contact the shaded pins in order to convert the spare or split illustrated by the shaded circles.
B. Indicate where on the approach you should stand in order to use the correct spare angle. (Write middle, left of center, or right of center)
C. Identify the shaded pins as either a spare or a split.
D. By the shaded circles place the appropriate number indicating the correct number of the pin.

1.

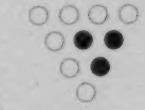
B _____
C _____

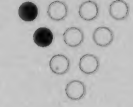
2.

B _____
C _____

3.

B _____
C _____

4.

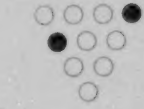
B _____
C _____

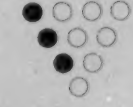
5.

B _____
C _____

6.

B _____
C _____

7.

B _____
C _____

8.

B _____
C _____

9.

B _____
C _____

10.

B _____
C _____

Figure 1. Bowling – Spares and Splits

Bowling in the Elementary School Program

PHYLLIS COOPER

Phyllis Cooper, a physical education teacher at the Vernon Elementary School in Vernon, Conn., received her B.S. from Westchester State College, Westchester, Pa., and her M.P.E. from Springfield College, Springfield, Mass. She conducts an elementary bowling intramural program at her school.

Bowling skills on the elementary level can promote enthusiasm, excitement, fitness, and fun through a variety of creative techniques employed by the teacher. Costly equipment is not required to provide a rewarding experience for every child on every level. The gymnasium is an ideal place to teach all the fundamentals.

The success achieved through innovative games makes bowling one of the most popular units among elementary school children. The following ideas are just a few of the possibilities that can be used to teach bowling skills.

Approaching the Ball

1. In grades 1 to 3 the basic skills of rolling and releasing can be achieved through the use of mimetics and various size balls. For example,

What is a pendulum on a clock? How does it move?

Use small fleece balls, tennis balls, or six-inch playground balls. Ask the students to demonstrate the movement and release the ball on the floor.

2. Ask the students to explore the different ways they can roll the ball. Through movement, exploration, and problem-solving techniques the teacher can discuss balance, swinging, bending and ball control so that students will understand how their bodies moves. Music with the proper beat to produce a smooth and flowing movement is extremely helpful. For example,

What can you do to make the ball roll smoothly? What can you do to make the ball roll straight?

Targets

3. Targets can be set up once the basic movements are learned. Almost any items can be used including coffee cans, milk cartons, boxes, cones and plastic bowling pins.

To make the game more interesting, have the students invent their own target combinations using different items together. Examples are shown in Figure 1.

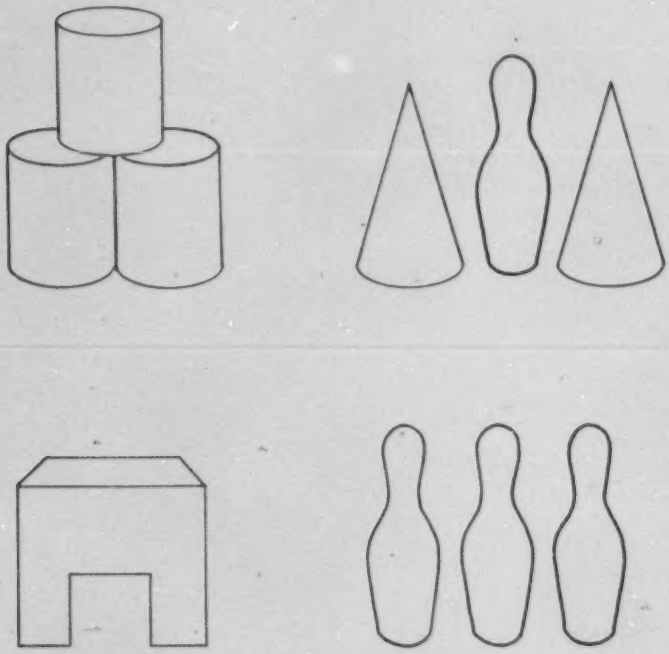


Figure 1. Various items used as targets.

Let the students create as much as possible and have them demonstrate their ideas to other members of the class.

Finger Positioning

Grade 3 students should be able to advance to a gymnasium bowling ball and develop an ability to execute a one and two-step

approach. Students learn finger positioning quickly with the idea that a rabbit's teeth (two middle fingers) go into the finger holes on the bowling ball. The fore and little fingers (the ears) go on the outside. The thumb is for the remaining hole in the bowling ball (see Figure 2).

Figure 2. Finger Positioning.

Pins may be set up in their proper spots on a pin deck that can be purchased or made out of cardboard. On a blackboard or by the use of an overhead projector, the pins with their appropriate numbers can be projected so that students may refer to them.

Using Math

Math skills can be incorporated into a variety of situations where students record the number of pins they have knocked down. Allow them to use the blackboard or prepare scoresheets for various activities and games. Smaller children usually are capable of counting up to 10 pins knocked down. The teachers can issue colored slips of paper. At the end of a given time the colored papers are counted and the total number of pins knocked over, recorded. First graders especially enjoy doing this.

Fourth and fifth grade students are ready for the advanced skills, including scoring, that are necessary for the regular game.

Coordination and Scoring

1. The fundamentals may be taught as in the lower grades with music as an aid to develop rhythmical movements of the body parts. When learning the two and four-step approach, music is most helpful to students because it enables them to coordinate the arm and leg movements essential in developing a flowing four-step approach. Removal of one sneaker provides for a smoother slide at the end of the four-step approach.

2. Scoring with the use of a blackboard or overhead projector provides a good learning experience. Teachers and students can present scoring problems and if children have scoresheets to work from, as the problem is projected it becomes a game and fun to do. For example,

> With the first ball John knocked over six pins, two with the second. What is recorded in the first frame?

Spares

3. Spares, as a game, can be a challenge by the use of worksheets. Each group of students is given a list of possible spares.

Figure 3.

Each team is responsible for setting up a particular spare situation indicated on the worksheet. In turn, each must set the spare up on the pin deck and then attempt to make it. In this way pin positioning and proper placement of the ball can be discussed.

Another interesting technique to teach spare conversions is to develop a different spare-combination on each lane with the students rotating lane to lane. Most students find this activity challenging and fun. There should be a constant interaction between the teacher and the student at this time. For example,

Can you hit the 1-3-6 spare? What is the best way to do it?

4. The use of a ballboy to retrieve the ball after it is bowled, a pinboy to set up pins, and a scorer allows more students to be actively involved. Students rotate after each turn. The scorer becomes the bowler, the bowler becomes the ballboy, the ballboy becomes the pinboy, and the pinboy becomes the scorer. Safety factors should be stressed at all times and rules of bowling etiquette can easily be suggested here.

5. The culminating activity should be run as close to a real situation as possible. Set up the lanes and organize teams. A team effort works best with each bowler bowling one frame until the game is completed. Everyone must score and tend the pins. This team effort approach helps to develop social skills because every team member must work together.

These are just a few ideas that make the bowling unit fun for all students. Certainly the development of a lifetime sport must not be overlooked.

All that it needs is a little imagination, a bit of creativity, a desire to reach every child to make a gymnasium an active, fun-filled, bowling center.

High School Intramural Bowling: A Lead-up to League Organization

RUTH M. DICK

Ruth M. Dick has taught physical education at junior and senior high school levels for 23 years in Wisconsin. She received her B.S. degree from Winona State College, Winona, Minn. and did her graduate work at the University of Wisconsin at Madison and LaCrosse. She was twice selected as a participant in the Lifetime Sports Bowling Clinics in Wisconsin. She has conducted a State Lifetime Sports Bowling Clinic in Wisconsin and has advised junior bowling leagues for 18 years.

An intramural bowling program provides high school girls with many opportunities, not only for bowling skills, but for learning program organization and leadership.

Most girls participate in sports that take place in the school facilities. The bowling center, however, provides a new and different environment for the girls. It is a facility away from the school where they are given the opportunity to participate in a lifetime sport year-round.

The initial organization for an intramural league is easily accomplished between teacher and bowling proprietor. Once the program is developed the same procedure may be followed each year.

Junior and senior high school girls can then take over the essentials including scoring the games, collecting the monies, keeping records of averages and attendance and figuring handicaps.

The best time to conduct the bowling program is through the winter months, because the gymnasium is usually occupied with varsity and intramural activities, particularly basketball.

For the girls who are not varsity-team sport-oriented, bowling in an intramural program can be an interesting and exciting experience.

Bowling leagues within a high school program are comparatively new in concept. Yet with a little encouragement, it becomes a successful activity that students continue not only through their high school years, but after their formal education has ended.

In the development of the total program for league bowling, it is important that the instructor arrange with the bowling proprietor the following:

1. Time for instruction should be allotted to all beginners and for a review of basics for experienced bowlers after teams are organized and before they begin league competition.

2. Two leagues should be formed: one for beginners and one for those who are skilled.

3. The possibility of placing beginners with experienced bowlers should be suggested.

4. The number of lanes that will be available to the students and the specific time allotment for these should be known.

5. The number of games each team can bowl in the allotted time limit should be decided.

6. The cost for each student with bowling shoes included in the cost should be clear.

7. A trial run should be made to determine the number of girls on a team along with the number of games to be played within a specific time limit.

8. The overhead projectors at the bowling center should be used for the teaching of mass scoring. Teachers can prepare transparencies with scoring problems which students and teacher can solve together. This should be done during the instruction time allotted to the group.

The bowling proprietors are most helpful in all areas. They usually offer special rates to the girls and many provide prizes or awards at the end of the season. Very often the awards are in the form of trophies for high single, most improved, and free games, to mention a few.

Many proprietors provide gymnasium bowling equipment for skill practice and even scoresheets so that scoring skills may be practiced at school.

The league can be sanctioned through the American Junior Bowling Congress. This will provide bowlers with the AJBC bowling patches which may be awarded at the end of the session. In this way, the better bowlers enter local and state bowling tournaments and also compete in the national competition for college scholarships.

Students enjoy league bowling and local proprietors, AJBC and officers of local bowling leagues are available and most willing to assist anyone who is interested in organizing school leagues.

Bowling Research

Revised by KATHLEEN BLACK
Central State University
Edmond, Oklahoma

Buck, Margaret. A manual for bowlers. Master's thesis, State University of Iowa, n.d.

Bowling survey. *Recreation Management* 2:10-11, April 1959.

Burton, E.C. State and trait anxiety, achievement motivation and skill attainment in college women; Beginning bowling and beginning riflery. *Research Quarterly* 42:139-144, May 1971.

Church, Kenneth R. The effect of different teaching methods and spot-of-aim techniques on bowling achievement of college men. Doctoral dissertation, Indiana University, 1963.

Cox, Gay Anne. The effectiveness of instruction using visual electronic unit in the development of beginning skills of college women. Master's thesis, University of Washington, 1963.

Curtis, Joyce Mae. The effect of four methods of spare conversion involving variation in point of aim on bowling achievement of college women. Doctoral dissertation, Indiana University, 1970.

Daily, L. et al. Effectiveness of a bowling aid to university bowling instruction. *Research Quarterly* 34:136-143, May 1963.

Fox, Margaret G. Lateral dominance in the teaching of bowling. *Research Quarterly* 28:327, Dec. 1957.

Greenlee, Geraldine A. The relationship of selected measures of strength, balance, and kinesthesis to bowling performance. Master's thesis, State University of Iowa, 1958.

Hennis, Gail M. Construction of knowledge tests in selected physical education activities for college women. *Research Quarterly* 27:301-309, Oct. 1956.

Hoft, Donald Joseph. A comparison between videotape and a conventional method of instruction in bowling. Doctoral dissertation, University of Utah, 1969.

Hyde, Patricia L. A comparison of the effectiveness of the thumb-up and V hand positions for beginning bowlers. Master's thesis, University of Wisconsin, n.d.

Klatt, Lois A. A comparison of the performances of above-average and superior women bowlers. In *DGWS Bowling-Fencing-Golf Guide 1967-69*, 13-16. Washington, DC: AAHPER, 1967.

Ley, Katherine L. Construction objective test items to measure high school levels of achievement in selected physical education activities. Microcarded doctoral dissertation, University of Iowa, 1960.

Liba, M. Trend test as a preliminary to reliability estimation. *Research Quarterly* 33:245-248, May 1962.

Lockhart, Aileen. The value of the motion picture as an instructional device in learning a motor skill. *Research Quarterly* 15:181, May, 1944.

Martin, Joan L. Bowling norms for college men and women. *Research Quarterly* 31:113-116, March 1960.

Martin, Joan and Jack Keough. Bowling norms for college students in elective physical education classes. *Research Quarterly* 35:325-327, Oct. 1964.

Meyer, Frank Albert. A study comparing the mechanical principles of movement approach with a traditional approach in teaching bowling. Doctoral dissertation, West Virginia University, 1970.

Mohr, Dorothy R. The contributions of physical activity to skill learning. *Research Quarterly* 31:321, May 1960.

Ochs, Keith M. The effect of video tape replay as an instructional aid in beginning bowling classes. University of Alabama, 1970.

Olson, Janice K. and Liba, Marie R. A device for evaluating spot bowling ability. *Research Quarterly* 38:193-201, May 1967.

Phillips, Marjorie and Summers, Dean. Bowling norms and learning curves for college women. *Research Quarterly* 21:377-385, Dec. 1950.

Showers, Norman E. A study of certain factors affecting bowling performance. Master's thesis, University of Southern California, 1951.

Showers, Norman E. and Gerber, Richard. A statistical analysis of men and women league bowling scores. *Illinois Journal of Health, Physical Education and Recreation*, p. 6, Fall 1969. Also published in the *73rd Annual Proceedings of the National College Physical Education Association for Men*, Dec. 1969.

Showers, Robert G. A study of certain factors affecting bowling performance of female bowlers. Master's thesis, University of Southern California, 1953.

Singer, R.N. and Beaver, R. Bowling and the warm-up effect. *Research Quarterly* 40:372-375, May 1969.

Smoll, F. L. Effects of precision of information feedback upon acquisition of a motor skill. *Research Quarterly* 43:489-493, Dec. 1972.

Summers, Dean. The effect of variations of type delivery and type aim on bowling achievement of college women. *Research Quarterly* 28:77, March 1957.

Thompson, Shirley. The relationship of spare set-up in bowling to first ball speed. In *DGWS Bowling-Fencing-Golf Guide, 1954-56*, pp. 24-26. Washington, DC: AAHPER, 1954.

Walters, C. Etta. A perceptual approach to the teaching of bowling. *Perceptual and Motor Skills Research Exchange* 4:75-79, 1952.

_____. A sociometric study of motivated and non-motivated bowling groups. *Research Quarterly* 26:107-112, March 1955.

_____. Motor ability and educability factors of high and low scoring beginning bowlers. *Research Quarterly* 30:94-100, March 1959.

Webster, Randolph W. Psychological and pedagogical factors involved in motor skill performance as exemplified in bowling. *Research Quarterly* 11:42, 1940.

Bowling Bibliography

Revised by KAREN L. MILLER
Rockville High School
Vernon, Connecticut

American Alliance for Health, Physical Education, and Recreation. *New Ideas for Bowling Instruction.* Washington, DC: the Association, 1970.

_____. *Gym-Bowl Teacher's Manual.* Washington, DC: the Association, 1965.

Annarino, Anthony A. *Individualized Instruction Set for Physical Education: Bowling.* Lafayette, IN: Purdue University, 1973.

Armbruster, David A.; Musker, Frank F.; Mood, Dale. "Bowling." In *Basic Skills in Sports,* for men and women. 6th ed. St. Louis: C.V. Mosby Co., 1975.

Barsandi, Rena. *Bowling.* Boston: Allyn and Bacon, Inc., 1974.

Bellisimo, Lou. *The Bowler's Manual.* 3d. ed. Englewoods Cliffs, NJ: Prentice-Hall, Inc., 1975.

Broer, Marion R. et al. *Individual Sports for Women* 5th ed. Philadelphia: W.B. Saunders Co., 1971.

Carter, Don. *Bowling the Pro Way.* New York: Viking Press, 1975.

Chapin, Kim. "Obviously It's a Leftist Plot." *Sports Illustrated* 34: 24-31, May 1971.

Casady, Donald and Liba, Marie. *Beginning Bowling.* 2d. ed. Belmont, CA: Wadsworth Publishing Co., 1968.

Decker, D. and Sutton, W.E. "Include Bowling in Your Activity Program." *School Activities* 38: 12-16, March 1967.

Falcaro, Joe and Goodman, Murray. *Bowling for All.* Rev. ed. New York: Ronald Press Co., 1966.

Levine, Sam. Who Are You Going to Tell It To? *The Woman Bowler* 33: Oct. 1969.

Mackey, Richard T. *Bowling.* 2d ed. Palo Alto, CA: National Press Books, 1974.

Martin, Joan. *Bowling.* 2d. ed. Dubuque, IA: William C. Brown Co., 1971.

McCue, Betty. *Physical Education Activities for Women.* Riverside, NJ: MacMillan, 1969.

Miller, Oral O. "Blind Bowling." *Journal of Health, Physical Education, and Recreation* 42: 59-60, April 1971.

National Bowling Council. *Instructor's Manual.* Washington, DC: the Council, 1973.

_____. *The Bowling Instructor's Handbook.* Washington, DC: Education Service Center, 1974.

Schunk, Carol. *Bowling*. 2d. ed. Philadelphia: W.B. Saunders Co., 1976.
Sullivan, George. *Bowling Secrets of the Pros*. Garden City, NY: Doubleday and Co., Inc., 1968.
Taylor, D. *The Secrets of Bowling Strikes!*. New York: A.S. Barnes & Co., 1960.
Welu, Billy. *Add 30 Pins To Your Bowling Score*. New York: Crown Publishers, Inc., 1972.

Magazines

Popular Bowling. Bimonthly. Joan Publishing Company, Dunellen, NJ
Prep Pin Patter. Monthly. 1913 W. 103rd St., Chicago, IL 60643

Bowling Visual Aids

Revised by KAREN L. MILLER
Rockville High School
Vernon, Connecticut

Films*

America Bowls at the ABC. 16mm, 15 min., sound, b&w. Free loan (4). Presents the 1960 ABC Tournament. Includes many scenes of tournament play featuring Joe Wilman, Buzz Fazio, Joe Norris, Buddy Bomar and Don Carter.

Bowling. Set of four filmstrips, color. Sale – sound $42.50, silent $37.00 (2). Currently being revised. Unit I: The sport – history, equipment selection, etiquette. Unit II: Delivery – grip, arm-swing, steps, and release. Unit III: Aiming – how to use "range finder" system for spot bowling; covers hook, straight, and back-up ball. Unit IV: Scoring – explained in simple, easy-to-understand terms.

Bowling. 16mm, 15 min., sound, color. Free loan (4). Entertainment film, showing scenes of Don Ellis performing trick shots in bowling.

Bowling Fever. 16mm, 12 min., sound, b&w. Free loan (4). Presents bowling techniques and the pleasures to be derived from bowling.

Bowling Film Loops. Set of five color film loops S89-3636/1. $124.75 (3). Individual film loops $24.95 each.

One-step delivery	S91-0083/1
Four-step delivery	S91-0091/1
Spot bowling for strikes	S91-0117/1
Spot bowling for spares: hook ball	S91-0125/1
Spot bowling for spares: straight ball	S91-0133/1

Lyndon Lee, former Lifetime Sports Clinician. First two loops filmed in gymnasium, last three in bowling centers.

Bowling Fundamentals. 16mm, 15 min., b&w. Rental $5.00 (5). Problems of beginner with progress through instruction in grasp, stance, approach, release of ball, and follow through.

Decision. 16mm, 20 min., sound, color. Free loan (4). Story of how a woman's discovery of bowling developed new friends and interests.

Duckpin Bowling. 15mm, 20 min., sound, b&w. Free loan (4). An interesting film about duckpin bowling – everybody's game. History of bowling and basic instructions on how to enjoy the sport.

*Numbers in parentheses refer to film distributors listed on page 50.

Fun on the Lanes: Young America Goes Bowling. 16mm, 17 min., sound, b&w. Free loan (1). 1964 AJBC league in action. Shows formation of league, election of officers, league play, season-ending awards banquets.

King of the Pins. 16mm, 10 min., sound, b&w. Free loan (4). Shows Joe Wilman; includes slapstick comedy by Buddy Hackett, but is instructional as well as entertaining.

Let's Roll with the Champions. 16mm, 15 min., sound b&w. Free loan (4). Features St. Louis Budweiser bowling team which demonstrates fundamentals of bowling and performs precision trick shots.

New Horizons. 16mm, 20 min., sound, color. Free loan (4). Informative film about how a bowling ball and pin are made. A trip to one of the Brunswick factories shows the making and operation of the Automatic Pinsetter.

On the Spot. 16mm, 12½ min., sound. Free loan (1,4,6). The importance of choosing a target on the lane over which to roll the ball is demonstrated by Dick Weber, Dave Davis and Judy Cook. Several basic spare pickups are explained. Film utilizes slow motion, stop action, overprinted diagrams and split screen presentations.

Tell It To the Girls. 16mm, 22 min., sound. Free loan (6). Describes WIBC's services as told by a typical league member.

Tenpin Showcase. 16mm, 18½ min., sound, b&w. Free loan (1). Includes highlights of ABC Tournament, college champions, and Master's Tournament.

To the Foul Line. 16mm, 12½ min., sound. Free loan (1,4,6). Dick Weber demonstrates arm and backswing, the walk to the foul line, and proper ball release. Judy Cook shows how to do it, feminine style. Film utilizes slow motion, stop action, overprinted diagrams and split screen presentations.

Top Star Bowling. 16mm, 50 min., sound, b&w. Free loan (4). Brunswick has made available 49 filmed matches from the current Top Star Bowling Television Series. Programs: 7 – Joy Abel vs. Marion Ladewig; 20 – Shirley Garms vs. LaVerne Carter; 33 – Judy Audsley vs. Marion Ladewig; and 46 – Joy Abel vs. LaVerne Carter.

Who's Keeping Score. 16mm, 12 min., sound, color. Free loan (6). An interesting and informative film about the latest innovations in bowling – the Brunswick Automatic Scorer completely eliminates manual scorekeeping and adds more fun and excitement to the game through its computerized system.

Film Distributors

(1) American Bowling Congress, Film Library, 1572 E. Capitol Drive, Milwaukee, WI 53211.
(2) The Athletic Institute, 805 Merchandise Mart, Chicago, IL 60654.
(3) BFA Ealing, Education Media, 2211 Michigan Ave., Santa Monica, CA 90404
(4) Brunswick Corporation, Bowling Division Film Library, Don Hill, 200 S. Chester St., Park Ridge, IL 60068.
(5) ROA's Films, 1696 N. Astor St., Milwaukee, WI 53202.
(6) Women's International Bowling Congress, Film Department, 5301 S. 76th St., Greendale, WI 53129.

COLLEGIATE DIVISION OF THE WIBC

The Collegiate Division of the Women's International Bowling Congress has been in operation on college campuses since September, 1966. In its first season, 35 leagues were sanctioned, and 1,003 WIBC memberships were issued to college women. For information about this popular program, request a Collegiate Division information packet from:

Women's International Bowling Congress
Collegiate Division
5301 South 76th Street
Greendale, Wisconsin 53129

Membership is open to all women students of colleges, universities, and junior colleges who meet their school athletic participation requirements. Membership fees are nominal. Amateur competitive status is mandatory for membership and participation in ABC or WIBC National Collegiate Division Tournaments. Its eligibility rule is reprinted below.

ELIGIBILITY AND AMATEUR STANDING RULE COLLEGIATE DIVISION OF ABC/WIBC

1. *General Eligibility–Intracollegiate Competition*
   Membership shall be available to all students who are enrolled in any institution of higher education and who meet the requirements of the institution for such participation.
2. *Specific Eligibility–Intercollegiate Competition*
   Eligibility shall be determined by the institution, conference, or sponsoring collegiate association regulations for intercollegiate athletics.
3. *National Collegiate Division Tournament Eligibility*
   To maintain amateur status for such a tournament a bowler must not–
   a. Bowl, substitute, or pace in any league or tournament or any other bowling competition where money or merchandise prizes are listed as awards. (*Note:* Individual intercollegiate athletic awards and similar momentos shall be limited to those approved and administered by the institution or its conference or sponsoring collegiate association in keeping with traditional college requirements as to what constitutes an acceptable award.)
   b. Accept personal assistance from a professional games organization or a commercial organization which clearly implies endorsement of any product.

c. Coach for money.
d. Accept pay for a radio or television appearance other than expense that might be reasonably incurred in his travel to and from the studio.
e. Compete for and/or accept scholarships awarded on bowling skills only.

4. Any violation of general playing rules that would result in suspension from the adult organization will result in loss of collegiate division membership. (*Note:* Bowlers under suspension or ineligible for WIBC and ABC membership are ineligible for membership in the Collegiate Division.)

5. All awards for leagues and tournaments sanctioned by the Collegiate Division must conform to amateur standards as established by the Collegiate Division.

OFFICIAL DUCKPIN RULES*

TEAM MEMBERSHIP

1. In a five-man team league, a legal team shall consist of five bowlers, four bowlers, and one dummy or three bowlers and two dummies. In a four-man team league two dummies shall be allowed per team. In a three-man team league only one dummy shall be allowed per team. In a two-man team, or doubles league, one dummy may be allowed, at the option of the league only. (NOTE – The members of the team may be REGULAR members of that team, ALTERNATE members of that team or ALTERNATE MEMBERS PROVIDED BY THE LEAGUE. An alternate bowler is a person bowling in the place of a regular team member. A substitute bowler is a person finishing a game that has already been started by a regular or alternate bowler. A dummy shall be considered as a regular member of the team but not as a bowler. Any and all bowlers who are eligible to bowl with a team at any time are eligible bowlers of that team and any, or all, such bowlers may be used to constitute an eligible team.)

In a non-handicap mixed league where a male member of the team is absent, or is withdrawn from the line-up, he must be replaced with another male bowler or with a male dummy score. Likewise, if a female member of the team is absent, or is withdrawn from the line-up, she must be replaced with another female bowler or with a female dummy score. (NOTE – In handicap mixed leagues the use of male replacements for female bowlers or female replacements for male bowlers is allowed with the difference created in the handicap automatically taking care of such changes.)

In a non-handicap "limited average" mixed league a male bowler may replace a female bowler and a female may replace a male bowler.

PLAYER SUBSTITUTION

2. The captain of any team may withdraw any player, or dummy, in any game and substitute any eligible player, or a dummy, at any time, but the player withdrawn shall not be eligible to again roll in the game from which he was withdrawn. The score shall be credited to the bowler beginning the game or completing a game started with a dummy or blind.

If a player withdraws and no substitution is made, the player's score for the game is the total of his actual score plus the dummy score of the league for each of the remaining frames of the game.

*Excerpts from rules reprinted with permission of National Duckpin Bowling Congress.

No recognition for any awards by the National Duckpin Bowling Congress can be given for any individual score in which a substitute (meaning a bowler substituting for another bowler who has already started the game) is involved.

DUMMY SCORE AS PINFALL

6. The dummy score, as regularly established by league rule, shall count as pinfall in every instance for the team being obliged to use such dummy score, and also for league awards if the league so determines.

PLAYING LANES

7. The lanes immediately adjoining each other shall be used in all games. The contesting teams shall successively and in regular order roll one frame on one lane, and for the next frame alternate and use the other lane, so alternating each frame until the game is completed. The teams must start the following game on the same lanes on which the tenth frame of the previous game was rolled.

Except that, at the option of a league, two frames may be rolled consecutively on one lane by each bowler on the team before alternating lanes. Where this procedure is followed the teams will start each succeeding game on the opposite lane from which the tenth frame of the previous game was rolled.

This exception shall apply to leagues only, and then only at the option of the league.

The captain of the visiting team shall be allowed choice of the lanes.

MACHINE BREAKDOWN

8. When one machine on a pair of lanes using automatic pinsetting machines "breaks down" during a league match or in any tournament and another pair of lanes is not available for use, then the bowlers "SHALL" continue rolling on one lane until the "broken down" machine is again in operation, at which time the bowlers shall resume bowling according to normal, regular procedure. During the period that the bowlers are bowling on one lane, the bowlers shall alternate in proper order as if bowling on two lanes, i.e., the leadoff bowler on one team being followed by the leadoff bowler on the other team, then the second bowler on the one team, followed by the second bowler on the other team, etc.

If a machine breakdown occurs during a league match or in any tournament necessitating moving the bowlers to another pair of lanes, the bowlers will change lanes and continue the game in the frame then being rolled, and shall remain on these lanes until the

completion of their scheduled match, unless there is a breakdown on these lanes.

This rule may be enforced to cover any number of breakdowns.

BOWLING PROCEDURE

9. The games shall consist of ten frames on each side. Three balls shall be allowed in each frame, to be rolled one at a time. All strikes and spares made in the tenth frame or any extra frame, shall be rolled off before leaving the lane, and on the same lane made. A strike or spare made on the roll-off of one made in tenth frame shall not be included in totals for season.

No pins shall be conceded. All pinfall to be accredited to a bowler must have been knocked down because of and by action of a legally delivered ball.

No game can be started until the preceding game is finished; i.e. the leadoff bowler shall not start the succeeding game until the anchor man of the opposing team has completed rolling the preceding game.

WHO SHALL ROLL FIRST

10. Bowlers should bowl as soon as the pins have been set up on their lanes. In the event of a controversy as to who shall bowl first in the last box of a game the bowler on the right shall bowl first, completing the box.

STARTING TIME FOR LEAGUE PLAY

11. Play shall begin at the starting time fixed by the league (this means the exact starting time — no grace period allowed). Should only three or four players be ready at that time, the team shall start with the players that are present and should the other players appear AT ANY TIME during the game, they may be added and begin play in the frame then being rolled by the team. Dummy scores, as fixed by the league, are to be used for all prior frames for such tardy players. No bowler will be allowed to catch up any frame that has been missed.

If there is not a legal team present at the starting time fixed by the rules of the league, the game or games shall be declared forfeited. All games must be rolled by the team claiming the forfeit. Forfeits cannot be claimed the first 4 weeks of a league schedule when a league has an odd number of teams and organizational work is being done to round out the league; postponements or make-up matches must be allowed in this case. A team can forfeit only one game at a time.

Those players who are present at the start of the game may roll for their individual average and score but the opposing team must

play its legal team. The scores of the players rolling for their individual averages shall NOT count as pinfall for the forfeiting team, and the forfeiting team shall not be credited with dummy scores as pinfall for those bowlers who are absent.

TIE GAME

14. In the event of a tie game, first or second game, each bowler will use for the roll-off the first frame of the succeeding game, and the highest total pinfall for the first frame of the succeeding game shall decide the winner of the previous tie game, and in the event that the total of the first frame for each team ends in a tie, bowlers will continue in the same manner for the next frame, and so on until the tie is broken. However, should the tie occur in the final game the teams shall change lanes for the next frame, and if the tie remains unbroken, teams shall continue to alternate lanes until the tie is broken.

In case of a tie game where a dummy is being used, the team using the dummy shall be allowed one-tenth of the dummy score for each succeeding box after the tenth until the tie shall be broken, fractions of over one-half to count as one pin, fractions of one-half and under not to count.

Pinfall in any frame after the tenth, to determine the winner of a tie game, shall not count as pinfall in the records.

Failure of team members to remain on the lanes until the totals of the two competing teams are computed shall, in a tie game, require such teams to bowl the extra boxes needed to break the tie with only those members then present. In such instances the scores of those competing, plus the regular dummy score of the league for the absent player or players, shall be used. If either team fails to have a legal number of bowlers (3 bowlers and 2 dummies, 4 bowlers and 1 dummy or 5 bowlers) remaining, the team that does have such legal number of bowlers remaining shall be declared as the winner of the tie game by forfeit.

TEAMS BOWLING ALONE

17. When any game is declared forfeited under the rules, the team present and not at fault must bowl any and all games to be bowled as though they were actually contested and the scores and averages shall be credited and recorded.

Any team which rolls a league match, not scheduled against another team, or where the opposing team does not appear, unless postponement has previously been arranged for, shall receive credit for three games won by forfeit. (A team cannot lose a forfeit match.)

Such forfeits shall mean a win of three games, or four points, whichever scoring system is being used by the league. No team shall roll against any previously determined scores and/or team averages.

FINAL POSITIONS OF TEAMS IN LEAGUE STANDING

18. Where teams are tied in the number of games won and lost, whether in the first or second half of a split schedule, or in a full season's schedule, the final positions of such teams in the league standings shall be determined by total pinfall, EXCEPT, where there is a specific league rule to the contrary, then the league rule shall apply.

FOUL LINE JUDGE

19. In all events or league games under the jurisdiction of the Congress an official foul line judge or an approved automatic foul detecting device shall be used.

In the event an automatic foul detecting device fails to operate properly the opposing team Captains shall be responsible for calling all fouls until the device has been satisfactorily repaired and operating.

The foul line judge shall take special care to declare all fouls immediately upon their being committed, unasked, and in a distinct, audible voice. The foul line judge's decision as to fouls shall be final. No appeal shall be allowed from the decision of the foul line judge except where it is apparent that a foul may have been called on the wrong player. Any player who shall continue to dispute the decisions of a foul line judge may be suspended from further participation in the match in question by the foul line judge.

CHANGING FOUL LINE JUDGE

20. No foul line judge shall be changed during a league game, or an advertised match game, without the consent of a majority of the team captains involved.

FOULS

21. A foul is committed when any part of the bowler's person or clothing encroaches upon or goes beyond the foul line and touches any part of any lane equipment or any part of the building which is beyond the foul line during or after the act of delivery, whether or not the ball is released. A ball is in play and a foul may be called after a delivery has been made and until the same, or another, player is on the approach in position to make a succeeding delivery.

If, in the act of delivering the ball any object falls from the bowler's clothing or person and breaks the light beam so as to

register a foul, a foul shall be called and so recorded. However, if any such object falls onto the lane beyond the foul line and the light beam is not broken, no foul shall be called.

No balls or pins will be allowed in the gutter or on the lane before rolling. Any ball delivered before deadwood is removed or while pins or balls are in the gutter or on the lane shall be deemed a foul and handled accordingly.

No appeal shall be allowed when an approved automatic foul detecting device registers a foul except when it can be proven that the device was not operating properly. (NOTE – A player may at any time cross over the foul line for the purpose of removing an obstruction from the lane, etc., upon notification to the foul line judge, opposing team captain or member of the opposing team or tournament official of his desire to do so.)

All fouls shall be handled in accordance with the following rules: When a foul occurs on the first ball, all pins shall be respotted, that ball and the pins knocked down by that ball are lost and the bowler has two balls remaining in that box. When a foul occurs on the second ball, pins knocked down, if any, shall be counted as knocked down by the third ball, the second ball is lost and the bowler is through for that box, i.e., if the bowler spared on the second ball and fouled, it is an automatic 10 box and the bowler is through for the box. When a foul occurs on the third ball, both the ball and the pins knocked down by that ball are lost and the bowler is through for that box.

Should a bowler make a strike in the 10th box or any extra box and foul on the first roll-off ball, that ball shall be lost, the pins knocked down by that ball counted as though knocked down by the second roll-off ball, and the bowler is through for that box. Should a foul occur on the second roll-off ball, both the ball and the pins knocked down by that ball are lost.

Should a bowler make a spare in the 10th box or any extra box and foul on the roll-off ball, both the ball and the pins knocked down by that ball shall be lost.

APPARENT AND VISIBLE FOUL

22. If a player commits a foul which is apparent to a tournament official, or to an official scorer, or to both captains, or to one or more members of each of the opposing teams competing in a league or tournament contest on the same pair of lanes where the foul is committed and the foul judge through negligence fails to see it committed or the automatic foul detecting device fails to record it, a foul shall nevertheless be declared and so recorded.

DELIBERATE FOUL

23. If it is apparent that a player deliberately fouls, to benefit by the calling of such foul, he shall be immediately disqualified from further participation in the match or event then in play.

Where an automatic pinsetting machine is in use and it is apparent that a bowler deliberately steps on or pushes the pedal or button that actuates the deadwood removal mechanism of the machine to benefit by such action, then the act of the bowler shall be considered as a deliberate foul, recorded as such and bearing the same penalty as outlined in the foregoing paragraph.

In league play any eligible substitute may immediately replace such disqualified bowler, beginning with the box following the one in which the bowler was disqualified, and shall be allowed only the pins knocked down prior to and including the box and delivery of the ball on which the apparent deliberate foul was made.

(NOTE – The above foul rules shall be used for both manual and automatic machine pinsetting.)

RESPOTTING PINS

24. Should any ball delivered leave the lane BEFORE reaching the pins, it shall be declared a "gutter ball" and the pins, if any, knocked down by such ball shall not count and MUST be respotted, and/or should any ball rebound from the back cushions, the pins, if any, knocked down by such ball shall not count, but MUST be respotted, all such balls to count as balls rolled. Pins knocked down by a pin, or pins, coming out of the pit after the delivery of a "gutter ball" shall not count, but MUST be respotted.

Pins knocked down by a pin or pins rebounding from the side boards or back cushions shall count as pins down.

After a fairly delivered ball makes contact with the pins, it cannot thereafter be called a "gutter ball" and all pins knocked down after this contact shall count as pins down, except as outlined above.

Pins knocked down by a pin or pins coming in contact with the pin-boy shall count as pins down, except should the pin-boy deliberately throw a pin or pins on the lane, then the pins knocked down by such action must be respotted. Pins which are knocked down or displaced by any cause, except by a fairly delivered ball, shall in all cases be respotted, except as outlined above.

When an automatic pinsetting machine is activated by inadvertently pushing the wrong button or pedal, all pins then standing shall be respotted and play shall be resumed with no penalty whatsoever.

When a flying pin, or pins, hit the pin table of an automatic pinsetting machine and dislodges a pin, or pins, from the pin table,

any pin, or pins, then standing on the pin deck that may be knocked down by such dislodged pin, or pins, shall be counted as pins down.

DEADWOOD

25. The deadwood must be removed from the lane and gutters after each ball is rolled, mechanically where automatic pinsetting machines are in use. Should any pins fall in removing the deadwood, such pins must be respotted.

When an automatic pinsetting machine is in use and the Number 7 pin and/or the Number 10 pin is knocked down by pins being cleared by the gutter belt such pin and/or pins shall be regarded as down.

Any pin or pins knocked down by the Number 7 pin and/or Number 10 pin shall count as pins down.

Any pin or pins knocked down by a pin or pins, or falling AFTER the bowler steps on or pushes the pedal or button that actuates the deadwood removal mechanism of an automatic pinsetting machine shall not count as pins down, and any pin or pins knocked down or falling after such action on the part of the bowler shall be respotted. Any pin or pins knocked down by the action of the deadwood removal mechanism of the machine shall not count as pins down and shall be respotted. Any pin or pins knocked down or falling AFTER the bowler steps on or pushes the pedal or button that actuates the re-set mechanism of the machine shall not count as pins down.

PIN SPOTTERS STICKING

26. If the pin spotters stick in manual pinsetting, whether on the first, second or third ball, all pins must be respotted and player must re-roll frame.

INTERFERENCE, WRONG LANE, ETC.

27. If any player rolls on the wrong lane or rolls out of turn, or is interfered with by a spectator or otherwise, or if any of the pins he is playing at are knocked down or disturbed in any way before his ball reaches them; or if his ball, after being fairly bowled should come in contact with any obstacle on the lane before reaching the pins, or if he bowled before all the pins were set up, the ball shall immediately be declared "dead" and the player shall roll again, after replacing the pins as they were before such ball was rolled.

However, if one or more bowlers on the other of the two lanes being used also rolls on the wrong lane, then no corrective action shall be taken and the game shall continue as though the lanes actually used were the proper lanes.

RETURNING PIN STANDING UP

28. Should a pin leave the lane, return, and stand up on the lane or should a pin be knocked down and stand up again without leaving the lane, the same shall be declared as not down and the player must roll again at the pin, unless it should be on the third ball.

Provided, however, if a pin returns and stands up on any part of the lane outside of the area covered by the pin deck it shall be counted as a pin down.

PROTESTS

31. All protests as to interpretation of playing rules must be made to the captain of the opposing team, or to an official in charge of an event, whichever the case may be, before the bowler in question comes up to bowl the next ball, or in the case of the last box of a game, immediately after it shall have been bowled. Should the player, or players, be allowed to roll the next ball in regular order before the protest is made, no protest shall be given consideration. The foregoing paragraph shall not, however, prevent the filing of a protest as to the use of ineligible players, violation of a league or tournament rule, etc., or for any violation not immediately apparent as provided for in the foregoing paragraph.

When a legitimate protest of a game or match is made by a team, it must be presented to the governing body of the league, or the team captains, as a whole, if there be no governing body.

If the protest is proved valid, the governing body of the league, or the team Captains as a whole, shall rule and their decision will be final, EXCEPT, where the protest pertains to the use of an ineligible bowler, in which case, the appropriate rule covering the use of an ineligible bowler shall govern.

OFFICIAL SCORER

32. In all sanctioned events or league games there shall be an official scorer, whose duty it shall be to keep a correct record of the game and at the conclusion thereof sign his or her name to the same. The captain of each team shall also sign the score sheet. It is the responsibility of each team Captain to observe that the addition of the scores during, and at the end of, a game, or games, is correct.

Official scorers and league statisticians must correct all mathematical errors discovered at any time, i.e.: individual game totals added incorrectly, wrong handicap used, handicap figured wrongly, etc.

It shall be the responsibility of the league secretary and/or league statistician or official scorer to verify the averages of all bowlers of the league throughout the season. If a bowler's average is found to

put the team over team average limit of the league the secretary and/or league statistician and/or official scorer shall immediately notify the Captain of the team involved. In traveling leagues the management of the establishment involved shall also be notified.

When the correction of a mathematical error by the official scorer or league statistician creates a tie game, such tie game shall be decided prior to the next regularly scheduled league match after the correction is made in accordance with the tie game rule regularly used in that league.

SCORING THE DUCKPIN GAME*

A game consists of 10 frames or boxes. Not more than three balls are allowed for each frame or box.

If all pins are knocked down by first ball it is called a strike. A strike is marked by an X.

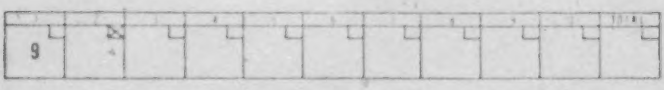
If some pins remain standing after first ball has been thrown and are all knocked down with the second ball, it is called a spare. A spare is marked thus \ .

After making a strike you are allowed 10 pins in that box plus pins made with next two balls.

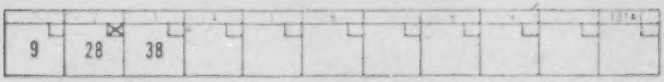
After making a spare you are allowed 10 pins in that box plus pins made with next ball.

If pins remain standing after first and second balls have been thrown, third ball is rolled and you are allowed exact number of pins knocked down by three balls. This is called a flat frame or box.

Suppose in first box you get nine pins with three balls and in second box you get a strike, score sheet will be marked thus:

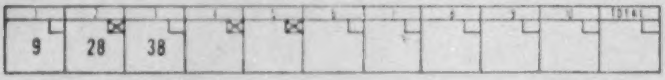


Counting 10 pins for the strike in the second box, you now have a total of 19 pins. However, no figure is written into second box yet because in addition to the 10 pins for the strike, you are allowed all pins knocked down with the next two balls. On next ball after strike, first ball in the third box, you knock down 5 pins and on second ball you knock down 4 pins. This gives you a total of 19 pins for second box, plus 9 you have in first box, and total to be marked down in the second box is 28. On third ball you get the remaining pin for a total of 10 in third box. Scoresheet will be marked thus:

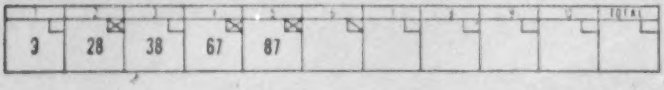


*Reprinted by permission of the National Duckpin Bowling Congress.

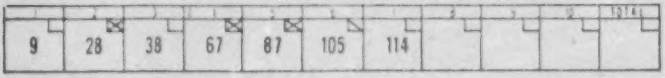
In fourth box you make a strike, and also in fifth box. Scoresheet will be marked thus:



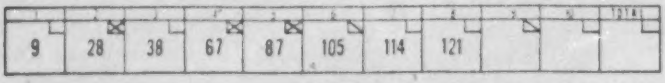
Remember, to 10 pins for strike in fourth box you add all pins knocked down by next two balls. On first ball, after strike in fourth box, you made strike in fifth box which gives you 10 additional pins, and on the second ball after strike in the fourth box, which is now first ball in sixth box, you knock down 9 pins. You now complete fourth box score which is 29 pins for that box – 10 pins for original strike, 10 pins for first ball after strike (in the fifth box) and 9 pins for second ball after strike (first ball in the sixth box) making completed fourth box score 67. For your fifth box score you have already rolled one ball after making that strike (first ball in sixth box) knocking down 9 pins. You now roll the second ball of sixth box getting remaining pin for a spare. That gives you 10 pins to be added to original 10 pins for fifth box strike, a total of 20 pins for fifth box. Scoresheet will be marked thus:



In the seventh box you get 8 pins on first ball. This, added to 10 pins for spare in sixth box, gives you a total of 18 pins for this box, making total for sixth box 105. On second ball you do not hit any pins but get one pin with third ball for a total of 9 pins in box. Scoresheet will be marked thus:



In eighth box you get 7 pins with all three balls and in ninth box you get all pins with two balls for a spare. Scoresheet will be marked thus:



In the tenth box you make a strike. As you made a spare in the ninth box you add these 10 pins made on strike to the 10 pins for spare and ninth box score is 141. Your tenth box strike entitles you to two additional balls – to be rolled at once – (a spare in the tenth box entitles you to one additional ball). With these two balls you get a total of 9 pins. These are added to 10 pins made on strike and final score of game will be marked thus:

										TOTAL
9	28	38	67	87	105	114	121	141	160	160

TENPIN RULES AND REGULATIONS*

SCORING THE GAME

Rule 1. a. A game of American Tenpins shall consist of ten frames. Each player shall bowl two balls in each of the first nine frames except when she shall make a strike. A player who scores a strike or spare in the tenth frame shall deliver three balls.

b. A ball is legally delivered when it leaves the bowler's possession and crosses the foul line into playing territory. A bowling ball must be delivered entirely by manual means and shall not incorporate any device either in the ball or affixed to it which is either detached at time of delivery or is a moving part in the ball during delivery except that any person who has had her hand or major portion thereof amputated may use special equipment to aid in grasping and delivering the ball providing the special equipment is in lieu of the amputee's hand.

c. Where an artificial or medical aid is necessary for grasping and delivering the ball because of any other disability of the hand or arm, permission to use the aid in sanctioned competition may be granted by the WIBC under the following conditions:

1. The aid does not incorporate a mechanical device with moving parts which would impart a force or impetus to the ball.
2. A description or drawing and model of the aid is furnished WIBC.
3. A doctor's certificate describing the disability together with his recommendation that the aid should be used is furnished WIBC.

If permission is not granted, the claimant shall have the right of appeal to the WIBC Legal Committee.

Should permission be granted for the use of an artificial or medical aid, a special identification card (not a WIBC membership card) will be issued the applicant indicating that the aid may be used in sanctioned competition providing the bowler has a current membership card and the use of the aid is specifically authorized by the league or tournament management.

Permission to use the device may be withdrawn for cause.

1	2	3	4	5	6	7	8	9	10
X	X	X	7 2	8 /	F 9	X	7 /	9 -	X X 8
30	57	76	85	95	104	124	143	152	180

*Reprinted with permission of the Women's International Bowling Congress. Changes are indicated by shading.

STRIKE

Rule 2. A strike is recorded when the player completes a legal delivery and bowls down the full setup of ten pins on the first ball. It is designated by an (x) in the small square in the upper right-hand corner of the frame in which the complete set of ten pins is bowled down with the first ball. The count in each frame where a strike is bowled shall be left open until the player has completed two more deliveries. The maximum count on one strike when followed by a spare is 20.

DOUBLE

Rule 3. When a player bowls two strikes in succession legally delivered, she shall have scored a double. The count in the frame where the first strike was bowled shall be left open until the player has completed her next delivery. When all pins are downed twice in succession, the count for the first strike is 20 plus the number of pins knocked down with the first ball of the third frame following. The maximum count on a double figuring a nine pin count on the first ball following the second strike is 29.

TRIPLE OR TURKEY

Rule 4. In scoring three successive strikes, the player shall be credited with 30 pins in the frame in which the first strike was bowled. Thus, in a game of ten full frames, a player must bowl 12 strikes in succession in order to bowl a game of 300.

SPARE

Rule 5. Any player who bowls down the remaining pins with a legally delivered second ball in any frame has scored a spare. A spare is designated by a (/) in the small square in the upper right-hand corner of the frame in which it is made. The number of pins knocked down after the first delivery before the player bowls for the spare should be marked by a small figure in the upper right corner of the frame. The count in such frame proper is left open until the player shall have bowled her first ball in the next frame following, when the number of pins knocked down by the first ball shall be added to the ten pins represented by her spare, and the total shall be credited therein. When a spare is scored in the tenth frame, a third ball shall be bowled in that frame.

ERROR

Rule 6. A player shall have made an error when she fails to bowl down all ten pins after having completed two deliveries in a given

frame provided the pins left standing after the first ball is bowled do not constitute a split. An error is designated by a (–) in the small square in the upper right-hand corner of the frame in which the error is made. The number of pins knocked down after the first delivery, before the player bowls at the remaining pins, should be marked in the upper right corner of the frame. The count in every frame where an error is committed shall be recorded immediately following the player's second delivery.

SPLIT

Rule 7. A split shall be a setup of pins remaining standing after the first ball has been legally delivered provided the headpin is down, and

(1) At least one pin is down between two or more pins which remain standing, as for example: 7-9, or 3-10.

(2) At least one pin is down immediately ahead of two or more pins which remain standing, as for example: 5-6.

NOTE: A split is usually designated by a (O), but any other symbol may be used.

PINFALL – LEGAL

Rule 8. Every ball delivered by the player shall count, unless declared a dead ball. Pins must then be respotted after the cause for declaring such dead ball has been removed.

(1) Pins which are knocked down by another pin or pins rebounding in play from the side partition, rear cushion, or sweep bar when it is at rest on the pin deck prior to sweeping dead wood are counted as pins down.

(2) If, when rolling at a full setup or in order to make a spare, it is discovered immediately after the ball has been delivered that one or more pins are improperly set, although not missing, the ball and resulting pinfall shall be counted. It is each player's responsibility to determine if the setup is correct. She shall insist that any pins incorrectly set be respotted before delivering her ball, otherwise she implies that the setup is satisfactory. No change in the position of any pins which are left standing can be made after a previous delivery in order to make a spare, unless the pin setter has moved or misplaced any pin after the previous delivery and prior to the bowling of the next ball.

(3) Pins which are knocked down by a fair ball, and remain lying on the lane or in the gutters, or which lean so as to touch kickbacks or side partitions, are termed dead wood and counted as pins down, and must be removed before the next ball is bowled.

PINFALL – ILLEGAL

Rule 9. When any of the following incidents occur the ball counts as a ball rolled, but pins knocked down shall not count:

(1) When pins are knocked down or displaced by a ball which leaves the lane before reaching the pins.
(2) When a ball rebounds from the rear cushion.
(3) When pins come in contact with the body, arms or legs of a human pin setter and rebound.
(4) A standing pin which falls when it is touched by mechanical pinsetting equipment, or when dead wood is removed, or is knocked down by a human pinsetter, shall not count and must be replaced on the pin spot inscribed on the pin deck where it originally stood before delivery of the ball.
(5) Pins which are bowled off the lane, rebound and remain standing on the lane must be counted as pins standing.
(6) If in delivering the ball a foul is committed, any pins knocked down by such delivery shall not be counted.

DEAD BALL

Rule 10. A ball shall be declared dead if any of the following occur, in which case such ball shall not count. The pins must be respotted after the cause for declaring such dead ball has been removed and player shall be required to rebowl.

(a) If, after the player delivers her ball and attention is immediately called to the fact that one or more pins were missing from the setup.
(b) When a human pin setter removes or interferes with any pin or pins before they stop rolling or before the ball reaches the pins.
(c) When a player bowls on the wrong lane or out of turn.
(d) When a player is interfered with by a pin setter, another bowler, spectator, or moving object as the ball is being delivered and before delivery is completed, player must then and there accept the resulting pinfall or demand that pins be respotted.
(e) When any pins at which she is bowling are moved or knocked down in any manner, as the player is delivering the ball and before the ball reaches the pins.
(f) When a player's ball comes in contact with any foreign obstacle.

NO PINS MAY BE CONCEDED

Rule 11. No pins may be conceded and only those actually knocked down or moved entirely off the playing surface of the lane as a result

of the legal delivery of the ball by the player may be counted. Every frame must be completed at the time the player is bowling in her regular order.

REPLACEMENT OF PINS

Rule 12. Should a pin be broken or otherwise badly damaged during the game, it shall be replaced at once by another as nearly uniform in weight and condition as possible with the set in use. The league or tournament officials shall in all cases be the judges in the matter of replacement of such pins.

A broken pin does not change the score made by a bowler. The number of pins knocked down are counted, after which the broken pin is replaced.

BOWLING ON WRONG LANE

Rule 13. When only one player or the lead-off on both teams bowl on the wrong lane and the error is discovered before another player has bowled, a dead ball shall be declared and the player(s) required to rebowl on the correct lane(s).

When more than one player on the same team has bowled on the wrong lane, the game shall be completed without adjustment and the next game shall be started on the correctly scheduled lane.

In singles match play competition, where a player normally bowls two frames each time it is her turn to bowl, and a player bowls on the wrong lane for these two frames, a dead ball shall be declared and the player required to rebowl both frames on the correct lanes providing the error is discovered prior to the time the opposing player has made a legal delivery. If the error is not discovered until the opposing player has bowled, the score shall count and the player shall be required to bowl her subsequent frames on the correct lanes.

BALLS – PRIVATE OWNERSHIP

Rule 14. Bowling balls used in the game and marked by their owners are considered private and other participants in the game are prohibited from using the same, unless the owner consents to such use.

> Note: A bowling ball shall not be more than 16 pounds in weight after drilling.

FOUL – DEFINITION OF

Rule 15. A foul is committed, with no pinfall being credited to the player although the ball counts as a ball rolled, when a part of the

bowler's person encroaches upon or goes beyond the foul line and touches any part of the lane, equipment or building during or after executing a legal delivery. A ball is in play and a foul may be called after legal delivery has been made and until the same or another player is on the approach in position to make a succeeding delivery.

If the player commits a foul which is apparent to both captains or one or more members of each of the opposing teams competing in a league or tournament on the same pair of lanes where the foul is committed, or to the official scorer or a tournament official, and should the foul judge or umpire through negligence fail to see it committed or an ABC approved automatic foul detecting device fails to record it, a foul shall nevertheless be declared and so recorded.

DELIBERATE FOUL

Rule 16. When a player deliberately fouls to benefit by the calling of a foul, the player shall receive zero pinfall for that delivery and shall not be allowed any further deliveries in that frame.

FOUL COUNTS AS BALL BOWLED

Rule 17. A foul ball shall be recorded as a ball bowled by the player, but any pins bowled down when a foul is committed shall not count. When the player fouls upon delivering the first ball of a frame, all pins knocked down must be respotted, and only those pins knocked down by the second ball may be counted. If she bowls down all the pins with her second ball after fouling with the first, it shall be scored as a spare. When less than ten pins are bowled down on the second ball after fouling on the first, it shall be scored as an error. A player who fouls when delivering her second ball of a frame shall be credited with only those pins bowled down with her first ball, provided no foul was committed when the first ball was delivered. When a bowler fouls during the delivery of her first ball in the tenth frame and bowls down all ten pins with her second ball (making a spare), she bowls a third ball and is credited with a spare plus the pins bowled down with the third ball. When a player fouls while delivering her third ball in the tenth frame, only those pins bowled down in delivering her first two balls shall be counted.

AJBC Rules Covering Organization of Leagues*

DEFINITION AND QUALIFICATIONS

Rule 100. Any league consisting of four or more teams with a minimum of two members, per team, and bowling according to a prearranged schedule shall be defined as a league, and may be sanctioned with the American Junior Bowling Congress.

Rule 101. Singles leagues with a minimum of four junior members may be sanctioned. Juniors bowling with adults in leagues where no cash or merchandise prizes are offered may also be sanctioned by AJBC.

> *Editor's Note:* Awards to both adult and junior bowlers in adult-junior leagues must be confined to awards permitted in their state under the AJBC eligibility rule. The maximum value per award as outlined in the current AJBC Program must be followed for both adults and juniors.

Rule 102. Such league, if sanctioned, shall bowl its schedule regularly as provided in its Constitution.

Rule 103. AJBC leagues may consist of all boys or all girls, or boys and girls. Leagues may be organized to include bowlers of all age levels in the same league, but AJBC special awards are based on the individual's age division.

> *Editor's Note:* AJBC age divisions based on individual's age as of August 1 of the current season are:
> Bantams – 12 years of age and under
> Juniors – 13 thru 15 years of age
> Seniors – 16 thru 21 years of age

MEMBERSHIP – MEMBERSHIP DUES

Rule 104. Membership in AJBC is open to all boys and girls, qualified under the AJBC eligibility rule, who have not reached their 22nd birthday on or before August 1 of the current bowling year. Once sanctioned under this rule an AJBC member is an eligible bowler until July 31 of the current bowling year, unless under suspension.

Rule 105. The AJBC current membership year runs from August 1 through July 31 of the following year. Junior membership shall expire on July 31 of the season in which issued except that membership will continue to be valid in tournaments until October 1

*Reprinted with permission of the American Junior Bowling Congress. Changes are indicated by shading.

for those who are under 22 years of age on August 1. In addition membership issued in a league which starts its playing schedule on or after March 15 shall be valid for the following season for those who are under 22 years of age as of August 1.

Rule 106. The AJBC membership fee shall be 65 cents per member which shall be submitted to the local AJBC association along with a league sanction application (Form AJ-6) and an individual membership application (Form AJ-14) for each member. The sanction application and membership dues must be filed with the local AJBC association secretary within 30 days after the start of the league's schedule. Supplementary league members must complete an individual membership application (Form AJ-14) which shall be submitted to the local AJBC association.

The payment of one AJBC membership fee entitles the member to participate in any number of leagues. AJBC members participating in a league other than the league through which they are sanctioned must complete an individual membership application (Form AJ-14) for each league in which they participate.

Rule 107. The local AJBC association shall be permitted to charge an additional 65 cents as its portion of the membership fee to help defray the cost of local services to the AJBC members in the area. In no case shall the combined membership fee for an AJBC member exceed $1.30.

Rule 108. Membership in AJBC can be obtained through a league only. No unattached memberships are given. In a league comprised entirely of junior bowlers, all participants must be members of AJBC. In adult-junior leagues, all junior bowlers must be members of AJBC if the league is to be issued an AJBC sanction. No league will be accepted for sanctioning directly to the AJBC office.

> *Editor's Note:* If there is no local AJBC association serving the area the sanction application will be filed through the ABC local association.

Rule 109. A league whose schedule begins on or after August 1 and before March 15 is classified as a winter league. A league whose schedule begins on or after March 15 and ends prior to October 1 is classified as a summer league. Any league ending after October 1 will be classified as a winter league in the following bowling season. All members of such a league are required to purchase the following season's membership cards.

Where the number of junior bowlers is constant on each team in adult-junior leagues all AJBC awards shall be made available. Where the number is not constant, the junior members shall qualify for

special awards. League awards in such leagues shall be made available upon special application to AJBC.

Rule 110. AJBC Eligibility Rule

To be eligible for membership in the American Junior Bowling Congress, and to retain the privileges of such membership, individuals under the age of twenty-two (22) must be qualified under the following conditions.

(a) Must not bowl, substitute or otherwise participate in any type of bowling competition where money or merchandise awards are offered on the basis of bowling score, bowling skill or position standing.

Note: Merchandise prizes shall be construed to include any prize of commercial or intrinsic value such as, but not limited to, free bowling game(s), bowling equipment – personalized or otherwise, vacation trips, trading stamps, etc.

(b) May bowl only for trophies, medals, emblems or similar symbolic awards. Such awards shall not exceed a maximum cost of $10.00 per award, except in the following states in which the maximum cost shall not exceed:

$7.00 – Montana
$6.00 – New Mexico
$5.00 – Alabama, Colorado, Idaho, Illinois, Michigan, New Jersey, Texas, Utah, Wisconsin and Wyoming
$3.00 – South Dakota

The maximum cost per award shall be applicable to symbolic awards given to AJBC members until they have graduated from high school.

(c) Must confine their participation within the travel restrictions permitted by their individual state high school athletic association for bowling activities until they have graduated from high school. Travel expenses must be disbursed by an adult except in instances where an AJBC member is personally paying their own expenses.

(d) May in the year of their graduation from high school compete in events offering college scholarships or grants-in-aid if bowling scores do not constitute more than fifty percent (50%) of the considerations for determining the recipients of such awards.

AJBC members, or non-AJBC members desiring to apply for AJBC membership, violating this rule shall be ineligible for participation in AJBC sanctioned competition as of thy date of such violation.

The period of ineligibility for AJBC membership, which shall be a minimum of sixty (60) days but not to exceed one year, shall be determined by the State Junior Association Secretary acting on behalf of the AJBC. The individual shall be advised in writing of the period of ineligibility.

Any individual suspended from or denied AJBC membership by reason of this rule may make written application for membership privileges to the local junior association secretary. Reinstatement cannot be granted until the applicant has concluded the specified period of ineligibility during which time they have refrained from competing in AJBC sanctioned competition and all bowling competition which violates the provisions of this rule.

Action on violations and reinstatements will be considered in accordance with the provisions of this rule and the respective state high school athletic association eligibility rules. Ineligibility remains effective until the individual has been advised in writing of their reinstatement by the state junior association secretary.

The AJBC Eligibility Rule Applies:

1. To AJBC members and to applicants for AJBC membership who violate the rule prior to such application.
2. To any type of bowling competition — leagues, tournaments, open play, television events, etc., — whether sanctioned or unsanctioned, sanctionable or unsanctionable.
3. To bowling, substituting or any other type of bowling participation.
4. Whether there is on behalf of the youngster, personally or otherwise, payment or nonpayment to a prize fund, acceptance of or refusal to accept a prize or portion thereof; scores being counted or not being counted.

Rule 21. Derogatory Conduct. When a bowler is suspended from membership in the American Junior Bowling Congress for conduct derogatory to the best interest of the game, he shall be prohibited and disqualified from thereafter playing with any AJBC sanctioned league or tournament until reinstated by the American Junior Bowling Congress. Any such team which shall knowingly play such disqualified player shall forfeit all games in which such player has taken part and such team may be suspended from membership in the American Junior Bowling Congress.

AJBC CODE

The AJBC suggests this code as a guide to bowling proprietors, instructors, coaches, and others interested in junior bowling to assure a program of wholesome environment, protected athletic eligibility, healthful recreation, and fun for young citizens.

No alcoholic beverages shall be served or consumed in the area where members of the American Junior Bowling Congress are engaged in AJBC functions.

AJBC members shall refrain from smoking during the time any AJBC function in which they are participating is in progress.

AJBC members shall not play pinball machines while any AJBC function or school bowling activity is in progress.

NAGWS FENCING COMMITTEE[1]
1975-1977

MARY BETH CRAMER, *Chairperson*, 105 White Building, Pennsylvania State University, University Park, PA 16802
PATRICIA CLAPP, 234 California Street, Ridgewood, NJ 07450
ELOISE N. CLARK, Daytona Beach Community College, Daytona Beach, FL 23015
JEAN DALTON, Madison College, Box G-15, Harrisonburg, VA 22801
NANCY DEIGHTON, Addison Trail High, 1147 Glenn Trail, Elk Grove Village, IL 60007
NATALIE GOODHARTZ, State University of New York, Brockport, NY 14468
MARY HEINECKE, Lawrence University, Department of HPER, Appleton, WI 45911
ARNELLE JACKSON, Fairview High School, 2408 Philadelphia Drive, Dayton, OH 45406
JOAN KOWALEWSKI, Utica College of Syracuse New York, Burrstone Road, Utica, NY 13502
JO REDMON, California State College, Long Beach, CA 90004
SUZANNE TYLER, University of Maryland, Department of Physical Education, College Park, MD 20740

NAGWS FENCING COMMITTEE
1977-1979

JO REDMON, *Chairperson*, California State College, Long Beach, CA 90840

[1]Current *Guide* material was prepared by the 1975-1977 Committee; material for the 1979-1981 *Guide* will be prepared by the 1977-1979 Committee.

Be Active in Fencing

Membership in fencing organizations of the United States will help coaches, teachers and students increase their knowledge of fencing, keep pace with changes and support a growing sport. Therefore, this guide will present information concerning several fencing organizations and their attempts to enhance the sport.

It is the hope of the Fencing Committee that both beginning and experienced teachers of fencing will find helpful information on all levels of fencing – beginning and beyond – and on all aspects of fencing – teaching, competing, coaching, officiating and organizing.

The Amateur Fencers League of America

JOAN KOWALEWSKI

Joan Kowalewski is currently the Women's Athletic Director at Utica College of Syracuse University in Utica, New York. She is a nationally rated director and fencing competitor as well as the coach of the Utica College Fencing Team.

The Amateur Fencers League of America is the foundation for preparing fencers for national, world championships and Olympic competitions.

The AFLA was founded in New York City in 1891. Dr. Graeme M. Hammond was elected first president and held office from 1891 to 1925.

The League is the official body for amateur fencing in the United States, and its exclusive jurisdiction is recognized by the Federation Internationale d'Escrime, the U.S. Olympic Committee and the Amateur Athletic Union. It is a member of the United States Olympic Committee and works in close cooperation with them in the selection and training of U.S. Olympic and Pan-American Fencing Teams. Every member of the U.S. Olympic and Pan-American Team must be an AFLA member.

The AFLA recognizes the jurisdiction of the National Collegiate Athletic Association and the National Intercollegiate Women's Fencing Association. Throughout the United States there are divisions of AFLA that conduct tournaments, rate directors, select individuals and team members to represent their division at sectional and national championships.

The AFLA annually conducts United States Championships in Open Events and under-19 age groups events and team competition.

The advantages of membership in AFLA are the following:

1. The members are kept abreast of fencing news in the United States.
2. The members are provided an opportunity to fence in organized competitions.
3. The members are provided a governing body for rules and regulations for fencing.
4. The members are provided an avenue for input.
5. The members are provided opportunities to acquire ratings in directing.

Note: This article and the three following are concerned with fencing organizations.

6. The members are provided opportunities to gain personal recognition for outstanding fencing endeavors.

7. The members are provided the satisfaction of aiding the organization that governs the sport of fencing throughout the United States.

The National Fencing Coaches Association of America (NFCAA) and The United States Academy of Arms (USAA)

A. JOHN GERACI

John Geraci has a B.S. from Newark College of Engineering and a Master of Arts degree in photography. He has been the fencing master and head coach of the United States Military Academy since 1971. His contributions to fencing include directing the 1967 U.S. Olympic Camp and being a member of the 1968 International Jury for the Mexico City Olympics.

The National Fencing Coaches Association of America (NFCAA) was founded at the 1940 Championships of the Intercollegiate Fencing Association. Its first officers were elected the following year at the first Fencing Championships of the National Collegiate Athletic Association, (NCAA).

The NFCAA has grown from that original handful of 8 to 10 coaches to over 300 active members all over the U.S. These members are the coaches and fencing masters of the nation's universities and colleges, high school, and junior high schools, fencing clubs, YMCAs, Boys Clubs, and interested, dedicated amateur coaches. Women have always been part of the NFCAA and at the present time there are 32 active members of whom one is a fencing master. An aggressive membership drive is now in effect to have all coaches at all levels of teaching become a part of the NFCAA. With interest in fencing growing in all parts of the country and with girls and women becoming far more active than previously, the membership rolls should double in the next few years.

The women coaches are a necessary part of the NFCAA and the USAA. A strong, composite professional organization is essential to promote the ideals and ethical standards of the teaching of the sport of fencing. The various problems besetting the sport have been serious and challenging. The NFCAA has been eager to study and solve these problems with all the professional knowledge and technical resources at its command. Since its inception, the NFCAA has made some remarkable advances for its membership and the sport of fencing. The Association has assisted its professionals and amateur coaches and teachers to direct, apply and implement the modern pedagogical, tactical and technical changes in the development of the sport. It has also helped them to organize, to disseminate and to benefit from the varied national and inter-

national teaching abilities and knowledges existing among diverse colleagues.

This is possible only if the NFCAA is of one professional accord. This does not mean we adapt to one particular method. Knowledge of different methods of teaching enrich our sport, as long as we have the common aim: Progress at all levels of teaching in both quality and quantity of activity. These can be achieved through the efforts of our various committees and through a professional accreditation program.

The various committees of the NFCAA are charged to do the following: To promote a leadership program; to promote and conduct conferences, workshops, institutes, training programs and fencing camps at all levels of instruction; to standardize equipment for the safety of the sport; to produce the NFCAA-USAA magazine, *The Swordmaster*, and a printed directory of membership names, affiliations and area locations; to communicate to the membership the latest information needed to teach at the highest level of expertise; etc.

At the annual meeting of the NFCAA on March 27, 1974, in Cleveland, Ohio, the fencing master members of the NFCAA took a very important step in the professional field of fencing by establishing the United States Academy of Arms. At the present time there are some 70 fencing masters in the USAA. The USAA, with its highly professional body and progressive accomplishments by groups and individuals, is a special committee and integral part of the NFCAA. It will promote public relations and disseminate publicity through modern communications tools such as videotape, television and magazines. It will publish *The Swordmaster* magazine, edited by A. John Geraci, fencing master. It will issue an annual printed directory with the names, addresses and affiliations of all members. The directory will also serve public relations by describing and explaining the reasons for the existence of the NFCAA and the USAA; it will be sent to athletic directors and all who are interested in receiving it. In essence, the United States Academy of Arms, representing the most competent experts in fencing and the overall body of fencing teachers of the NFCAA, resolves to improve, promote and foster the highest ideals of teaching and sportsmanship in the sport of fencing.

The first officers of the USAA are the following:
ALFRED R. PEREDO, *President*, Baruch College
A. JOHN GERACI, *Secretary-Treasurer*, West Point
RAOUL SUDRE, *Working Chairman*

These three fencing masters comprise the executive committee and will execute its general policies and activities. An advisory board

of 11 persons was named to formulate the general policies and activities of the USAA. Inasmuch as one of the most important functions of the USAA is to set the standards of teaching accreditation for its fencing masters, a five-person Accreditation Board for Examinations was named. This examining board will set the standards of the examinations, specify the criteria and the body of knowledge and administer the examinations in various parts of the USA at different times.

The NFCAA and the USAA are eager to have the cooperation and support of every professional and nonprofessional teacher of the sport of fencing at any level. Let us band together for the most effective and strongest organization to achieve the goals we have set for fencing. Through the combined efforts of the highly qualified professional and the highly motivated amateur fencing will grow to be a wonderful source of enjoyment, and to take its rightful place among worldwide sports. It will thus achieve the recognition in the United States that it has had in European countries.

If you are a teacher or coach or fencing master, amateur or professional, and wish to join us, to have a subscription to *The Swordmaster* magazine and the prestige of your name in the NFCAA *Directory*, please contact

A. John Geraci, Fencing Master, Secretary-Treasurer,
NFCAA-USAA
279 E. Northfield Road
Livingston, NJ 07039

The National Intercollegiate Women's Fencing Association

JOAN KOWALEWSKI

Joan Kowalewski's biographical sketch appears on page 79.

The National Intercollegiate Women's Fencing Association operates on the level of preparing women for competition in intercollegiates, world games and junior olympics. It was founded in 1929 to aid in the development of women's collegiate fencing and to sponsor an annual championship competition.

During the early years fencing was primarily located in metropolitan New York and individuals from that area played a major role in promoting the organization throughout the United States. Like many newly formed groups, the NIWFA had growing problems. There was a reluctance on the part of most women's colleges to participate in any athletic activity involving a championship. As a result of the dedicated work of Mrs. Stuyvesant-Fish, Mrs. Evelyn Van Buskirk, and Mrs. Mildred Schoonmaker, the organization became a stronger and a more representative ruling body. Eventually other colleges joined NIWFA and supported the championship concept.

Membership is open to any college or university granting a bachelor's degree. The members of the fencing team must be full-time, matriculated, undergraduate students in good academic standing. They must also be amateurs and their eligibility is for four years.

In addition to the Championship held in April, there is a Fall Invitational. Colleges are invited to send four participants to engage in an individual competition.

The Championship in April is held for team competitions as well as a final individual competition. The size of the NIWFA membership has reached proportions where it is essential to hold sectional qualifying championships. This is a newly adopted procedure and 1976 was the first year of operation.

Advantages of NIWFA membership are the following:

1. It provides the member college with an organization governing fencing rules and regulations throughout the United States.
2. It provides the member college with input for creating change.
3. It enables the member college to keep abreast of all intercollegiate women's fencing in the United States.
4. It provides the members with two highly organized, well-run competitions a year.

5. It provides women competitors an opportunity to engage in high caliber, competitive endeavors with other collegiate fencers.

Women's Western Intercollegiate Fencing Conference

JO REDMON

Jo Redmon, an associate professor of physical education at California State University, Long Beach, has taught and coached both the men's and women's fencing teams during her 12 years at the university. Her B.S. and M.S. degrees were earned at the University of California, Los Angeles. She served on the **Fencing Guide** *editorial committee from 1967-1969. She was president and permanent secretary-treasurer of the Intercollegiate Fencing Conference of Southern California, president of the men's and women's Western Intercollegiate Fencing Conference and permanent secretary-treasurer-historian of the WWIFC. She is active in workshops and demonstrations promoting fencing in southern California. She has served, several times, on the NCAA National Fencing Championships seeding committee.*

Collegiate women's fencing in California has had a long and rather glorious past and promises an even better present and future! Women who have competed in the Western Championships have gone on to compete and receive national ranking in the U.S. Nationals, World University Games, Pan-American Games, World Championships, and Olympics. Some of the more familiar competitors are Gay Jacobsen D'Asaro, Sue McCourt, Virginia Bleamaster, Blythe Devan, Sheila Armstrong, Sherry Rose, Elvira Orly, Debby Waples, Bernice Filerman and Pat Bernhard.

Men have been competing in the Western Intercollegiate Fencing Conference Championships for many years. For a number of those years women also fenced, but primarily as guests. Schools without men's teams were not invited.

The Founding of WCFA

By the fall of 1956, many coaches were beginning to feel that women needed real status, better recognition and rules and regulations of their own. In short, they needed their own organization. The man most instrumental in pushing women forward was Maestro Erich Funke d'Egnuff, who taught and coached at San Francisco State College. At the WIFC meeting of February 23, 1961 groundwork was laid and the Women's Collegiate Fencing Association was formed. Maestro Funke was elected chairman and given instructions to form his own committee.

Because most collegiate fencing at that time was in northern California, it was the northern coaches who attended the first WCFA meeting on May 9, 1961. There were seven women, mostly physical educators, and two men. Frederica Bernhard, of the University of California, Berkeley, was elected vice-chairman, and Helen Windham, of Foothill Junior College, was named secretary-treasurer. A constitution committee was formed and work began. Letters were sent to all two- and four-year colleges and universities in California, Arizona, New Mexico, Colorado, Utah, Wyoming, Nevada, Washington and Oregon, inviting them to join the new association.

On January 16, 1962, the second meeting took place at San Francisco State. Most of the meeting time was spent working on the constitution and by-laws. By the time the final draft had been approved, all the member schools had made their suggestions. Copies were then sent to the National Association for Physical Education for College Women and the National Section for Girls' and Women's Sports.

Championship Competition

The WCFA Championship, the first such competition for women in the western United States, was held at the University of California, Berkeley, on April 28, 1962. Eleven teams entered the one-day, standard foil event. The format was patterned after the men's – a complete team round robin with A's fencing A's, B's fencing B's, and C's against C's. The individual competition followed the team event, with six finalists, the top 3 A's, 2 B's, and 1 C, vying for top honors.

In 1964, the Championship was fenced with electrical equipment, and in 1967, the event had expanded to two days. 1967 was also the first year for choosing an outstanding fencer. In 1971, the Association's name was changed to reflect the new status of women in sports; it became the Women's Western Intercollegiate Fencing Conference. It also made it easier for the coaches to remember the proper initials!

Today, when the men have their Championship in the north, the women fence in the south, and vice versa. The WIFC is held on the first weekend in March; the WWIFC on the second. In 1975, 20 teams entered the Championships and 70 women competed in the individual competition.

Members of the WWIFC are continuing to look to the future, and in 1975, petitioned the AIAW to sponsor a truly national women's collegiate championship. When that becomes a reality, the WWIFC will become a regional stepping stone for some fine teams – a truly exciting prospect for Western fencers!

Fencing Class Formations

RICHARD J. GRADKOWSKI

Richard Gradkowski has been active in AFLA fencing for many years. He is a rated AFLA director and has participated in several fencing clinics.

The classical arrangement for the teaching of fencing is the individual pupil-fencing master unit. This method is undoubtedly best for the intensive development of the individual fencer. The close rapport necessary for the communication of complex ideas, and the adaptation of theory to the particular demands of a pupil are best accomplished by the use of this highly individualistic tutorial system. The fencing master, however, often finds situations where this method is not practical. If the class is sizable, individual lessons must be short to be equally distributed. During the time taken up by these lessons, the motivation of the other students may lag. They may feel that the instructor has lost interest in them. Few things are more discouraging than seeing a group of bored or uninvolved pupils sitting around while the fencing master is occupied giving an individual lesson.

To overcome this problem, and to keep the entire class active, the following suggested series of group formations can be used. These formations may be used in large class situations, training camps, team practice and in clinics and demonstrations whenever one instructor has to handle a large group. The rationale for using a particular formation varies. Certain formations are uniquely suited for certain functions and unsuited for others. Such factors as available floor space, size of group, open lines of vision, exercise space requirements and types of actions executed must all be considered. Sometimes merely changing a formation will add psychological stimulus to the dull routine of hard training.

Mass Formation

Mass formation (Figure 1) is the most efficient with large groups where space is limited. It is well suited for calisthenics and general conditioning work such as running in place, etc. Problems of supervision may arise in that the instructor cannot reach all of the participants and, in this case, an assistant circulating among the formation may help. The members can see better if the ranks are staggered, if the instructor is on a platform. The instructor should be sure that she/he can be clearly heard and seen by the pupils.

Figure 1.

Line Formation

Line formation (Figure 2) is uniquely suited to footwork exercises because complex footwork patterns may be executed without fear of collision. Each student can observe the instructor directly with a visual check on either side. The fencing master should place all left-handed students on the right end of the line, and the master should be on the spot bisecting the left-handed and right-handed segments of the line. In this way all pupils can easily observe the instructor without uncomfortable craning of necks.

Figure 2.

Circle Formation

Circle formation (Figure 3) is best suited to intermediate size groups not exceeding 10 to 12 pupils. It can be used for the introductory phase of learning a new skill and for the brief period associated with implanting a new concept. For example, the fencing master teaches the group the disengage riposte from a parry four.

The instructor then has each individual pupil do the action against him, while remaining in the center of the circle rotating from pupil to pupil. This procedure allows each pupil to do the action once or twice and to receive correction. The others, being in close proximity and knowing that their turn will soon come, observe intently and can even pick up pointers from each other's mistakes.

Figure 3.

Half-Circle Formation

Half-circle formation (Figure 4) is suited for conferences, demonstrations and discussions as it permits all pupils to look closely while still leaving room for the fencing master and an assistant to maneuver. Pupils may sit on the floor in this formation without anyone's getting lost in the back of a group.

Figure 4.

Railroad Train Formation

Railroad train formation (Figure 5) consists of a constantly moving line of pupils acting in sequence with the fencing master and, upon completion of their action, returning to the end of the line. This formation is well suited to repetitious drill of one action without requiring the intensity of the concentrated master-pupil lessons. Because of the line's rotation, everyone is kept busy and in motion preparing, executing the action, or coming back into line. As they go around the pupils have a chance to review and correct their errors. This formation is especially good for sabre and épée attacks done with the flèche.

Figure 5.

Double-Line Formation

Double-line formation (Figure 6) is useful for the practicing of prearranged reciprocal exercises. Specific attacks and defenses can be executed by command, or freely by the pairs of fencers in two facing lines. The coach can circulate, giving correction and advice. One well-known women's coach uses the designation "Musketeers" and "Cavaliers" for distinguishing the lines. Some very elaborate actions, going as far as second intention, may be practiced in this

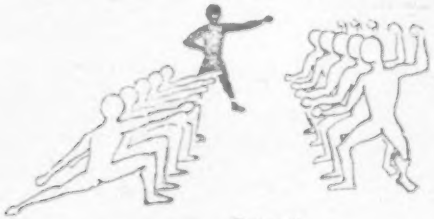


Figure 6.

92

way. The pupils take turns acting as the attackers and defenders, thus getting a well rounded comprehension of an action. An important pedagogical point in this method is that the pupils are somewhat on their own; they work with each other instead of with the coach, and thus make many adjustments to each other's individual tempo and idiosyncracies.

Effectiveness

In conclusion, it should be emphasized that although a particular formation generally is best suited for a particular need, many of these formations can be used interchangeably (especially with groups of moderate size). The effectiveness of the formations is increased by the presence of assistant coaches on the floor. Instructors inexperienced or unfamiliar with the use of such class formations should not hesitate to try them. In teaching fencing to large groups, instructors will find that the sense of activity and participation engendered in their students will be well worth the little extra trouble.

Fencing Task Cards Complement Command Teaching

SANDRA L. JABLONSKI
NANCY M. SELL

Sandra Jablonski and Nancy M. Sell earned B.S. degrees in health and physical education from The Pennsylvania State University. Both fenced competitively for PSU and are AFLA directors. Nancy was president of NIWFA during her senior year and is now active in fencing in the Philadelphia area. Sandra has taught fencing for PSU, is the advisor to the school's fencing club and an active official.

As in any motor skill, continuous repetition is necessary for proficiency in fencing. Instructors and coaches are accomplishing this through command teaching. Repeated commands may become monotonous and do not adequately allow individuals to react to the unique timing of partners, or to develop their own timing and rhythm. Command teaching to groups is also limited in its ability to accommodate each student's rate of progress. The ideal teaching situation should challenge all students whether at high skill levels or at lower levels. Fencing task cards help achieve this objective.

Purpose and Sequence

Fencing task cards, as described here, are not designed to teach new skills. They are meant to explore and practice different combinations and patterns of known skills. Terminology must be clear for the cards to be effective. The cards are simple to construct and use. Specific drills for paired fencers are typed on numbered 3 x 5 cards, in sequence, from basic skills to more complex ones. Each skill should be presented from both lines of engagement. The card following an attack should be that attack again with the appropriate defense. Footwork patterns may also be included as combinations build. For example, if card 1 is a simple disengage-lunge, card 2 could add a counter parry-riposte. A double would naturally follow on card 3. Card 4 could then be the defense of the double. These attacks should then be repeated to the opposite line on cards 5 to 8. This would be followed by changing the counter parry to a lateral parry and progressing to a one-two which would look like the following:

9. A. Engage in 6.
   B. Disengage from 6 to 4 with an advance.

A. Retreat and parry 4.
B. Disengage to 6 to evade *A*'s parry and lunge.

Using The Cards

Uses for these cards are as varied as the cards themselves and so are applicable to class, club and team work. A basic set of cards for beginning classes could include disengage, coupe and beat combination attacks defended by lateral and counter parries with direct and indirect ripostes. Class drilling with cards frees the instructor to give individual help without leaving the entire class idle as happens in command teaching. Specific cards or groups of cards can be assigned to meet each student's needs. Reciprocal teaching can take place in this situation. Individuals in classes usually develop distinct strengths and weaknesses. By pairing fencers with opposing skill competencies, strengths should be enhanced and weaknesses decreased. Finally, the cards can be used for grading purposes. Students may choose or be assigned a card to perform for a subjective skill grade in a controlled situation in addition to their bouting situation grades.

For club and team situations, although basic cards may be used for review, more complex cards are also needed. A greater variety of attacks should be available, including binds, croises and high and low line combinations. Complexity of defenses will be increased accordingly. Examples follow.

Low line dis-riposte 8

A. Engage in 4.
B. Disengage from 4 to 8 and lunge.
A. Parry 8 and begin riposte in 8.
B. Recover and parry 8.
A. As *B* recovers and parries 8, finish the riposte with a disengage to 4 and lunge.
B. Parry 4 and riposte in 4.

A. On guard with 6 closed.
B. Disengage from 6 to 7 and lunge.
A. Parry 7 and disengage riposte in 7.
B. Parry 7 and disengage riposte in 4.
A. Parry 4 and disengage riposte in 4.
B. Parry 4 and disengage riposte in 6.
A. Parry 6 and riposte in 8.
Directions: Each parry is in the on guard position and each dis-riposte is done with a lunge.

Coupe 1-2

A. Engage in 6.
B. Begin advance and coupe from 6 to 4.
A. Begin retreat and parry 4.
B. Finish advance with disengage from 4 to 6.
A. Finish retreat and parry 6.
B. Disengage from 6 to 4 and lunge.

Bind

A. Engage in 4.
B. Advance with disengage from 4 to 6.
A. Retreat with parry 6.
B. Disengage to 7 to evade *A*'s parry 6 with lunge.
A. Parry 7 and riposte in 7 with lunge as *B* recovers.
B. Parry 7 and bind to 6 with lunge as *A* recovers.

In workouts, cards again provide individualized rather than group drills. Reciprocal teaching can be a great asset here. One's strength is bound to be another's weakness. This type of information sharing can benefit the team's attitude as well as skill. Even the most skilled fencers can be challenged by adaptations and combinations of cards. The coach is then available for individual instruction.

Problems

Task cards are not immune to problems. Students must be reminded to vary their tempos to avoid becoming mechanical. Frequent changing of partners can help eliminate this problem. Off-hand fencers create another problem. Basic card sequences can be rewritten to accommodate the off-handed fencing situation. We suggest color coding these cards for easy identification. On higher skill levels the adaptation can usually be made by the fencers. It may be advantageous to develop cards with skill patterns particularly valuable in off-handed situations.

One final problem encountered is that of finding specific cards quickly. A simple, abbreviated identification or classification in the right-hand corner can alleviate this problem (for example, 1-2, double-dis., low-high, binds, etc.).

Command teaching is a valuable technique in teaching fencing but it need not be the only technique employed. Task cards accommodate student variability in skill and tempo, reciprocal teaching, grading and instructor freedom. Task card teaching can be a positive addition to any fencing program.

Troubleshooting on the Strip

DANIEL R. DECHAINE, JR.

Dan DeChaine has been the U.S. team armorer at the United States Olympics (1968), The Pan-American Games (1967, 1975) and the World Fencing Championships (1969). He has served as a product design consultant for foreign fencing equipment manufacturers and has designed and manufactured many test devises for fencing equipment. A coach and competitor himself, his knowledge has helped him stay abreast of the latest rules, interpretations and developments in fencing.

With the advent of the electric weapon has come the problem of troubleshooting and maintenance. In most cases, this task can be handled by the coach, thus insuring the most efficient use of equipment and time.

Things can go wrong in any system. Although each small part of the system may be simple, when all the parts are put together, the whole becomes complex. The best approach to troubleshooting is to isolate and work on a single part of the system at a time. The trick is knowing where to start and how to proceed.

Following is a list of the most common problems, their causes, how to locate the trouble spot and what to do about it. Keep one thing in mind and troubleshooting will be easy: Play the odds. Start with the most likely trouble spot and work toward the least likely. Assuming that the box is plugged in, and everything is attached correctly, this means that normally you can start at the tip of the weapon and work back toward the machine.

Foil

The foil utilizes a fail-safe circuitry. When it is plugged in and current is flowing, nothing much happens. When a break occurs *anywhere* in the circuit, it fires a signal to indicate the interruption in the circuit. To accomplish this, a *normally closed* switch is used in the tip of the foil.

In the body cord are three wires, connected to three plugs, called A, B and C (Figure 1). C is always the ground, in that it is connected directly to the blade. The A is connected via a clip to the electric jacket (the lame). The B is connected to the wire in the groove in the blade. This wire is insulated from the blade at every point *except one:* inside the point of the foil. The wire terminates in an insulated cup inside the *barrel* which is screwed firmly onto the blade. The insulated tip (the movable portion of the point) is in contact with

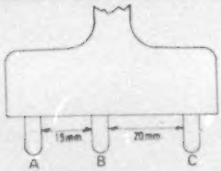


Figure 1.

the barrel and fixed in position *only* by two small screws. Inside the point is the heart of the switch, the spring. This spring is, at its base, in constant contact with the end of the wire, and at its other end, in constant contact with the tip. The tip, remember, is in contact with the barrel *by means of the two screws only*. When the tip is depressed it breaks contact with the two screws, thus *interrupting the circuit* (Figure 2).

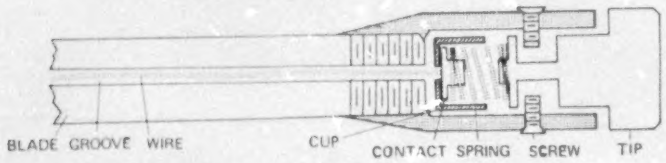


Figure 2.

The key phrase here is "interrupting the circuit." The intended method of accomplishing this interruption is, of course, depressing the tip. There are, however, many other things that may interrupt the circuit and these are the problems which will be dealt with. Normally, a weak electrical current leaves the signalling apparatus, travels along a wire in a cable to the reel, through contacts in the reel and along a cable to the body cord plug. It then travels up one wire of the body cord to a plug in the foil, from there up a wire to the tip, through the tip to the barrel and down the blade to the bracket of the socket. From there it travels along a different wire in the body cord to a socket and plug, back through a wire in a cable and back to the socket in the signalling apparatus. A single break or interruption anywhere along that path will cause the fail-safe circuit to fire as surely as will depressing the tip. With these facts clearly in mind, the following problems may be tackled.

WHITE LIGHT ON CONSTANTLY
(break somewhere in the B or C line):

1. Check the foil tip. If loose, the wire may have been cut by the loose tip. If not,

2. Spin the point in the tip a few times. Sometimes a little dirt gets into the tip, breaking the connection on one end of the point spring. If this doesn't work,
3. Check the entire length of the wire from the tip to the socket. Any breaks? Is there a good solid contact at the socket?
4. Replace the foil anyway, just to make sure that you haven't missed something. If this cures the problem, take more time later to locate the break in the circuit in the foil. If the problem persists,
5. Go to the plug behind the fencer. Carefully pull the plug *halfway* out of the socket, and using a coin, short (connect) the B and C prongs. If this cures the problem, it indicates a faulty body cord in which one of the two wires leading to the foil plug is open. Replace the body cord. If the problem continues,
6. Go to the reel and completely unplug the cable leading from the reel to the machine. Using your coin, short between the B and C prongs of the cable. If this solves the problem, the reel appears to be the culprit. If not,
7. Go to the back of the box and pull the plug out *halfway*, and again use your coin to short between the B and C contacts. If this finally solves the problem, replace the cable. If it does not, it is probably a bad machine.

WHITE LIGHT ON INTERMITTENTLY
(intermittent open in B or C)

These are sometimes tough to locate, because they come and go. In addition to following the above procedures, there are often clues as to where the problem lies. If the light goes on when the weapons are hit together, suspect a foil, or body cord or guard connector. After checking for a loose barrel, flex the blade to spot a wire broken at the tip. If this fails to produce a white light, wobble the body cord in its socket in the guard. Tug at the cord and pull it from side to side. If this fails, replace the foil anyway, and if necessary, the body cord. If, on the other hand, the light goes on whenever the fencer advances or retreats on the strip, suspect the reel. Repeat the tug-and-pull procedure at the plug behind the fencer and pull the cord out and let it retract back into the reel a few times. If the body cord and foil are known to be good, simply replace the reel and turn it over to a technician who has the instruments to locate the problem. Much time can be wasted trying to fix an intermittent on the strip. It is better, once the problem is localized, to replace the culprit and leave the repair to an expert.

WHITE LIGHT DOES NOT GO ON WHEN TIP IS DEPRESSED
(B - C short circuit)

First make sure that the box itself is working properly by unplugging the cable from the back of the box. If the light goes on, the box is working.

1. Unplug first the foil. If the light goes on, the foil is at fault. Check for a wire crushed under the handle.
2. Unplug the body cord at the rear of the fencer. If the light goes on, the body wire is short-circuited. Replace. If still no light,
3. Unplug cable at side of reel. If light goes on, the reel is bad. If there is still no light, you have isolated it in the cable between the reel and the machine. Replace the cable.

WHITE LIGHT WHEN LAME IS TOUCHED
(open A line on defender's side)

1. Make sure that the clip is securely attached to electric jacket. If so, unclip it and depress the defender's tip directly against the clip. If this results in a colored light, it means that the jacket has too high a resistance and must be replaced. If this still gives you a white light,
2. Go to the plug at the back of the defending fencer and carefully pull the plug *halfway* out of the socket. Depress the attacker's tip against the A prong at that plug. If the colored light then goes on, a bad body cord is indicated. If you still get a white light, proceed to the defender's reel. Pull the cable going to the machine *halfway* out of the reel. Depress the attacker's point directly against the A prong on the plug. If you get a colored light, it indicates a bad reel. If the white light persists,
3. Go to the machine and halfway unplug the cable where it plugs into the box. Again, depress the attacker's point directly against the A prong. If the colored light now goes on, the connecting cable was bad; if not, it *might* be a bad box, but there is still one other possible cause: This condition can occur if the B and C wires are reversed in the attacker's circuit.
4. Substitute first another body cord on the attacker's side. If this cures the problem, the two wires on his body cord were reversed. If the white light persists,
5. Change the reel on the attacker's side and test again. If this doesn't do it,
6. Change the cable going between the reel and the machine on the attacker's side and test again. If the problem still persists, it's now time to change the box and hand it over to a technician.

WHITE LIGHT WORKS WHEN TIP IS DEPRESSED BUT NOT WHEN TIP IS DEPRESSED AGAINST ELECTRIC JACKET

(Caused by a short circuit between A and B or between A and C on defender's side)

1. First check the attacker's tip to assure that it is well covered with tape. A small amount of metal showing below the tip could cause this short to occur. If necessary, change the foil and test again. If neither of these tests produces a colored light,
2. Substitute the defender's body cord and test again. If this cures the problem, the body cord was at fault and needs repair. If no change was produced,
3. Replace the reel on the defender's side and test again.
4. If you still have the same condition, replace the cable from the reel to the box on the defender's side. Finally, if the condition persists, it would seem that the box is at fault.

WHEN TIP IS DEPRESSED, WRONG COLORED LIGHT GOES ON *or* WHEN TIP IS DEPRESSED AGAINST LAME, BOTH COLORED LIGHTS GO ON

(caused by A - B short circuit on attacker's side)

1. Repeat the above steps, but on the attacker's side this time, replacing components, starting with the body cord, and proceeding step by step back toward the apparatus, retesting after each substitution. When finally you get the system to work properly, the last component you changed was the faulty one.

There are, of course, many other things that can go wrong with the foil system, but space permits covering only those that will happen in the vast majority of cases. Other problems can often be traced to a malfunctioning box and in that case, a technician is absolutely required.

ÉPÉE

The épée functions quite differently from the foil. The tip employs a *normally open* switch. This means that no current is flowing until the point is depressed to close a circuit in the tip of the weapon. When the point is depressed, current is allowed to flow from the box, through the cable, reel, body cord, *one* of the wires in the blade, through the *two* contacts inside the tip, back down the *other* wire in the blade, out through the body cord, reel and cable, back to the machine. Just as in the foil, a break or short circuit anywhere in this system can cause a malfunction. If this occurs, unlike the foil, no signal is automatically given. In the case of a break or short circuit, touches simply don't register. Following are some of the most common failures:

WEAPON WON'T REGISTER

(*either* open A or B line or short circuit between C and A or B)

1. Check point to make sure that the tip is present. If it isn't, replace weapon and try again. If the tip is present,
2. Check for separation. Sometimes the *head* of the tip becomes separated from the *body* (Figure 3). When this happens, repair is easy. Simply tap the head back into place. For a more permanent repair, carefully add a tiny drop of an alphacyano-acrylic "super glue" to the shaft in the opening before tapping the tip back together.

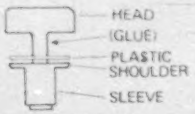


Figure 3.

3. If there is no separation, unplug the body cord from inside the guard and short (using a coin) between the A and B on the body cord. If this produces a signal, the weapon was bad, with either a broken wire or a short circuit.
4. If there is still no signal, unplug the body wire from the reel-plug behind the fencer. Short the A and B on the *socket*. If this fires a light on the box, the body cord is the villain. If not, proceed to the reel itself.
5. Unplug the cable from the side of the reel and short the A and B prongs of the cable leading to the box. If this works, the reel was bad.
6. If there are still no results, go directly to the box, unplug the cable from the box and short the A and B inputs on the box. If this fails, the box is bad.

As was stated earlier, this can be caused by either an open line *or* a short circuit. Unless your signalling apparatus has lights that indicate a short circuit, you will have to rely on your armorer or technician to be able to discover which it is and to repair it. Often it is a simple problem inside the point. The most common systems used in points is the side-by-side contact. A few simple maintenance procedures will keep them operating well for a long life span. Make sure that the contact spring is flat on the end, not at an angle, and that it is centered over the two contacts in the point (Figure 4). Whenever the

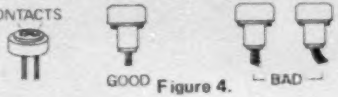


Figure 4.

point is opened, sand the end of the contact spring and with a jeweler's screwdriver, scrape clean the two brass contacts down inside.

ÉPÉE REGISTERS AGAINST THE OPPONENT'S GUARD
(Open C on defender's side)

After determining that the attacker's point and the defender's guard are clean:

1. First inspect the plug inside the defender's guard to insure the bracket of the socket is making good contact with the guard. Check to be sure plug or wire connecting the bracket to the C socket is intact and making good contact at each end.
2. Unplug the body wire from the guard socket and depress the attacker's tip against the C prong. If this works (box now fails to register the hit), replace the weapon and clean all the *ground* contacts in the weapon (those connected to the C socket of the plug).
3. If the light still fires, unplug the body cord behind the fencer and depress the tip against the C socket of the reel cable connector. If this cures the fault, replace the faulty body cord.
4. If the light still fires, go the reel and unplug the cable at the side of the reel. Depress the tip directly against the C prong of the cable. If this produces no light, replace the faulty reel. If the light still fires, however,
5. Unplug the cable from the box and depress the tip directly against the C input on the box. If this last resort still produces a light, change the box.

These problems will, in all likelihood, be the ones you encounter 99 percent of the time, and with the above procedures, and common-sense maintenance, you should not only be able to track down these problems, but fix them quickly. Good luck.

Utilizing the Universal Gym for Improving Upper Body Strength in Women Fencers

JOAN KOWALEWSKI

Joan Kowalewski's biographical sketch appears on page 79.

The typical recommended conditioning program for fencers has emphasized the lower body. Footwork, running, and stretching are all stressed by coaches and teachers. A minimal number of exercises are included for the upper body. The shoulder girdle area needs special attention because these muscle groups are usually underdeveloped in women, and yet it is an area overlooked for developing in fencers. The degree of hand and arm strength is also underrated in terms of its significance to women starting to fence.

A great deal of stress and strain is placed on the shoulder girdle area and arms when a woman is given a foil to manipulate and begin learning the various techniques. Many women are not developed to contend with this new physical strain.

A conditioning program developing the upper body will prepare the woman, deter discomfort and injuries, and in later experiences in fencing it will also prevent fatigue.

Research by Lind and McNicol indicates that the stronger a muscle is, the longer it will take to tire. This factor is significant when a fencer performs for many hours during a day of fencing. With upper body fatigue the entire body will soon succumb to this physical weakness. A universal gym is ideal for women fencers to use for developing the upper body. Simple, lightweight, repetition routines can be developed for each woman to attain desired strength. Figures 1 through 6 illustrate the exercises.

Typical Program 3 – 5 Days a Week

Exercise	Sets	Repetitions	Weight *
Bench press	2	10	50 lbs.
Pull over	2	10	60 lbs.
Forward shoulder press	2	10	60 lbs.
Front pull down	2	10	60 lbs.
Side bend	2	10	60 lbs.
Wrist roller	3	10	Adjustable to attain resistance

*Weights will vary with each woman. What is recommended is a sufficient load to affect muscle use. Repetitions can be increased as weight becomes lighter.

The program should start prior to the season, and taper off to twice a week for a shorter duration.

Diagrams of the Suggested Universal Exercises

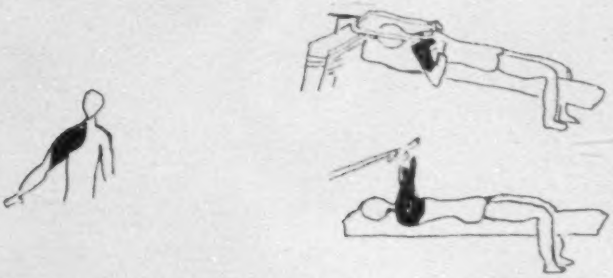


Figure 1. Bench press: Affected areas are the deltoid muscles, pectorals and triceps. (Shading indicates affected areas.)

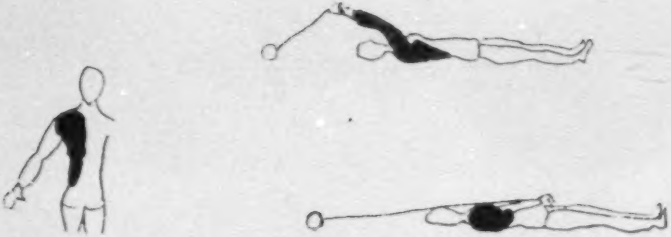


Figure 2. Pullover: Affected areas are the latissimus dorsi, pectorals, serratus anterior and intercostals.

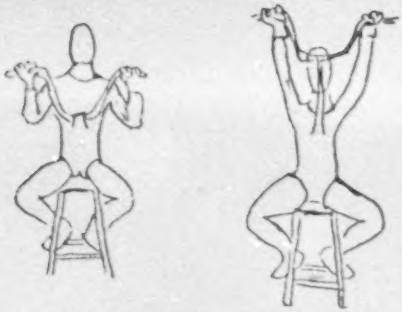


Figure 3. Forward shoulder press: Affected areas are the muscles deltoid and triceps.

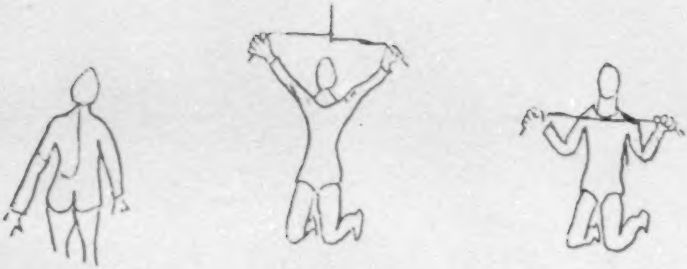


Figure 4. Front pull down: Affected areas are muscles of the back and upper arm.

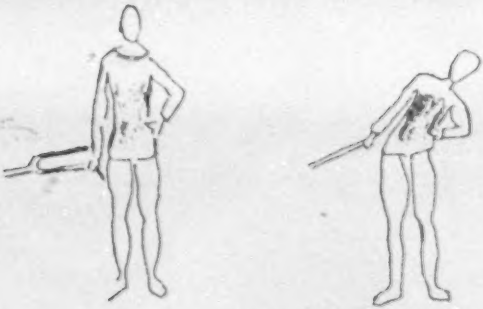


Figure 5. Side bend: Affected areas are muscles external and internal oblique, intercostals and rectus abdominis.

Figure 6. Wrist roller: Affected areas are abductor pollicis longus, extensor carpi radialis brevis, extensor carpi radialis, flexor digitorum profundus, supinator, pronator quadratus. All flexors, extensors and abductors of the hands and forearms.

References

Falls, H.B., Logan, G.A., and Wallis, E.L. *Foundations of Conditioning.* New York: Academic Press, 1970.

Coaches Training Manual, Universal Athletic Sales Company, 1972.

A Self-Help Approach to the Development of Fencing Instructors

WALTER G. GREEN III

Captain Walter G. Green III, has served as chairman of the Virginia Division of the AFLA and initiated the Virginia Academy of Arms. His fencing has included study at Cornell University International Fencing Camp. Currently in the Army, he is involved in AFLA at both the coaching and officiating level.

One of the major problems in the development of the sport of fencing in the United States has been the lack of a sufficient cadre of knowledgeable novice level instructors. The top level coaches are undoubtedly some of the finest in the world, but there is not a corresponding supporting base of high school and community coaches who are competent to develop the beginning fencer and to ensure that the novice receives an absolutely solid grounding in the fundamental techniques of the sport. The beginner who is exposed to bad instruction will recognize this fact and will not continue with the sport, a factor which contributes to our slow growth rate.

Lack of Properly Qualified Instructors

Typically, the instructor in the average community club, high school program and even in many college physical education programs fits one of two models. The first is the fencer who competed regularly on a college team. Because of this association with the sport the individual assumes the mantle of a coach. During the college experience, however, the coach was interested in one thing: Winning bouts. The average fencer with this experience knows how to fence, but has only limited knowledge of the pedagogical techniques of our sport, usually based on a vague memory of what the coach did. In addition, such instructors rarely have any of the academic physical education background that is vital.

The second type of instructor presents in many ways a worse picture. The physical education major typically receives six weeks of group instruction in fencing as part of a multisports survey curriculum; this actually represents at best approximately 18 hours of instruction. While this individual should have knowledge of philosophy, sports medicine and conditioning theory, etc., her/his complete lack of any real knowledge or experience with the

competitive sport more than offsets the value of the academic knowledge.

In 1972 the Virginia Division recognized the lack of qualified fencing instructors and decided to take specific steps to help the average fencing instructor and to develop new instructors with basic competence. At first, we thought the answer was to import coaches to Virginia for clinics and to encourage as many of our instructors as possible to attend extended clinics. For several reasons, however, we moved away from this idea. First, the economic situation is steadily worsening and the cost of importing instructors is out of all proportion to the benefits of a one- or two-day clinic. Second, a clinic of the typical weekend model cannot adequately serve the needs of the novice instructor, especially if the clinics are conducted on a sporadic basis. The novice instructor needs regular theoretical instruction and regular practical supervision on a unified technical plan. Short clinics cannot meet this requirement. Finally, and unfortunately, most new instructors, especially the amateur at a small local club, cannot afford to attend clinics of the type run by Raoul Sudre or Penn State. I say "unfortunately" because these are excellent in every respect.

Founding the Academy

As part of our effort to provide some alternative, the Division founded a Virginia Academy of Arms, and invitations were sent to all known individuals in the state who were teaching or coaching, to participate in the organization of the Academy. Only a small number responded initially, but this has grown so that the Academy now has 11 members, including three beginning instructors, all three of the active community club instructors and the Division's two professionals. Membership is open to any individual who is actively teaching fencing, provided that she/he is sponsored by a current member and passes a written and practical test of fencing knowledge.

The Academy's purpose is (1) to help improve the quality of coaching, and (2) to help improve the quality of fencing. In the first case we concentrate on a self-help approach based on a free exchange of technical information about all aspects of instruction and coaching in the sport. Our specific program is based on the following:

The Program

A Regular Program of Seminars. Each of these day-long gatherings is aimed at one specific area. For example, the January 1975 seminar deals with the selection and composition of conditioning

programs. A committee of the Academy is responsible for coordinating the subject matter for the seminars to insure that each one logically becomes part of the instructor's education.

A Quarterly Journal. This mimeographed publication is designed to encourage each member to write thoughts on any aspect of fencing so that the other members may criticize and evaluate them.

An Accreditation Program. The Academy awards certificates as an assistant leader, leader, and advanced leader. The first two are single weapon awards, and the last requires competency in all three weapons. The body of knowledge required at each level is based on the content of our proficiency award scheme and is evaluated by written, oral, and practical examination by a panel of three Academy members. This program helps to insure a basic level of knowledge among the accredited instructors and to give individuals a series of goals for their own education as a coach. We feel that an assistant leader is well qualified to handle absolute beginners in the mechanics of footwork, the weapon, the straight attack and simple parries. A leader can teach simple blade work through indirect attacks, and has basic training in giving an individual lesson. Each candidate for examination must be sponsored by a member of the Academy who ensures that the individual has received detailed technical training.

In the second case, (improving the quality of fencing), a proficiency program for four awards, novice, bronze, silver, and gold, has been developed for each weapon. All instructors are urged to use the progression established for the awards as a basis for teaching and to have their students regularly tested for the awards. Each level includes a written and practical test. The tests are given by a single examiner and are based on strict technical perfection of the required movements. We have found that these awards are well received and that the average student can qualify in approximately 18 months for all four.

To date, we feel that our Virginia Academy of Arms has given the amateur and professional coaches in our state a framework for mutual cooperation in improving the level of instruction offered our fencers. An environment free from other distractions has been created for the interchange of ideas and information among instructors. Our accreditation program is also valuable in giving instructors standards to work toward and in making them familiar with the examination process.

Other divisions might consider these ideas and adapt them to the particular needs of their areas and fencing population. Certainly the instructors produced under our system are not comparable to anything approaching the standard of a fencing master. They are competent, however, to start people in our sport and they will

ensure that each fencer will be taught according to an approved, standard system. In some areas that have a number of already established masters such a training scheme could well produce more advanced coaches. If AFLA divisions would use the coaching resources within their boundaries and adopt whatever organizational structure might prove most appropriate, they could make a definite contribution to the development of the sport.

Anaerobic Conditioning for the Varsity Fencer

NATALIE GOODHARTZ

Natalie Goodhartz received her Ph.D. in exercise physiology, and her M.A. in anatomy from Ohio State. She competed as a member of the Brooklyn College Varsity Fencing Team and subsequently, in the AFLA. She coached the Ohio State Varsity Fencing Team, and is currently coach at SUC-Brockport and teacher of exercise physiology.

During the past several years women's fencing has witnessed a tremendous upsurge in the athleticism displayed by performers on strip. As greater numbers of fencers begin to perform at more proficient technical levels, and with greater strength and explosiveness, it becomes critical for both the performer and the coach to deal effectively with training and conditioning programs that will facilitate superior performance and keep the fencer competitive in an increasingly demanding sport.

Specificity of Training

An important principle the coach should realize is that conditioning is specific rather than general. For example, increasing the size or bulk of a muscle will increase strength, but will not concomitantly increase the speed of muscle contraction. Conversely, conditioning for aerobic endurance will not improve strength. It becomes necessary, therefore, to assess carefully the physical demands of fencing so that an appropriate conditioning program may be constructed that will usurp as little time as possible and yield reasonably rapid results.

Energy Sources for Fencing

Since strength training is dealt with elsewhere in this issue of the *Guide*, this article will address itself solely to endurance conditioning. The type of workout employed to enhance endurance depends upon the chemical systems used by the active muscles to provide the necessary energy, or fuel, for contraction. The systems used in fencing are quite different from those used, for example, in marathon running. Basically, there are three methods by which energy is generated to allow for muscle contraction. Two of these (the ATP-PC system and the lactic acid system) are anaerobic, meaning that they do not require the presence of oxygen to occur. The third method is the oxygen, or aerobic, system. Determination of the system responsible for supplying the energy needed for a

given sport is based upon the duration and intensity of the activity. In many sports, more than one system may be operative; therefore, to establish a realistic conditioning program it is essential to determine which system predominates.

Anaerobic Conditioning Drills

Fencing relies primarily upon anaerobic sources for energy and power. A properly constructed conditioning program will increase the amount of sugar stored in the muscles and develop greater efficiency for those cells to metabolize sugar, allowing the production of ATP.[1]

In designing an anaerobic conditioning program, the coach should keep in mind two factors. The first concerns the intensity of the workout. To increase the performance capability of a given physiological system, that system must be stressed close to its present maximum capacity. This is known as working at overload.

The second deals with the desirability of working and resting intermittently rather than performing continuous work. Current literature in the field of exercise physiology, as well as high success rates of athletes, would seem to indicate that interval training which uses alternate work and recovery phases is preferable. The success of such a program is largely attributable to the fact that significantly less fatigue is experienced by the athlete without sacrificing work intensity.

Conditioning Drills

Because fencing involves a predominance of anaerobic work, the conditioning program should employ drills demanding high intensity work performed during short time periods (30 seconds to 3 minutes). Combinations of general conditioning techniques and specific fencing drills that meet these two conditions will increase the ability of the fencer to work explosively during the bout. The time usually provided between bouts should allow for sufficient recovery so that even the fencer who reaches the finals of a long, competitive day should be well served during each bout by having prepared with a primarily anaerobic conditioning program. The following few drills are offered merely as examples of an anaerobic conditioning program. Coaches and fencers will have to construct their own programs, meeting the requirements for an anaerobic program but adapting to the physical environment available to them.

[1] Edward L. Fox and Donald K. Mathews *Interval Training – Conditioning for Sports and General Fitness.* Philadelphia: W.B. Saunders, 1974.

Drill	Time	Repetitions
1. 110-yard sprints	15 seconds	5-7 (sprint,walk back)
2. 50-yard wind sprints	6-8 seconds	10-15 (sprint, walk back)
3. lunges with recovery	45 seconds	3-5 (Progressively increase number of lunges without sacrificing form.)
4. Small advances down length of strip (without incurring vertical motion)	10-15 seconds	3 strips
5. Advance - lunge - recover 15-20 seconds 3 strips	15-20 seconds	3 strips

The times suggested are based upon performances of well-conditioned female athletes in volleyball and fencing. During a five-day a week, two-hour practice, only the specific fencing drills are incorporated (others are also used, in addition to those suggested). The general sprints are conducted along with a weight training and stretching program requiring approximately 20 minutes following each daily practice session.

Combat Analysis and Strategy

PATRICIA A. CLAPP

Patricia Clapp taught social studies at Ramapo High School in Franklin Lakes, N.J. She obtained her B.A. and M.A. degrees from Montclair State College, N.J., where she competed on the MSC women's varsity fencing team. In her 10 years of coaching the varsity and junior varsity girl's fencing teams at Ramapo (1961-1971), the varsity had all winning seasons and five straight were undefeated. The Ramapo squad won two high school team championships and several individual championships during this time. Patricia Clapp organized and Ramapo hosted the first annual N.J. girl's high school level, individual championships with the sponsorship of the N.J. AFLA. A former member of the NJ AFLA junior Olympic and publicity committees, she and the Ramapo team participated in the junior Olympic fencing demonstration at the 1964 World's Fair in New York. She has also led summer clinics, demonstrations, and workshops in area schools.

How often have you had fencers come to you, frustrated with the poor results from a bout or competition and declare, "Nothing I tried worked. What should I do?" If you were fortunate enough to be sitting on the sidelines, observing, you may have been able to answer and thus temporarily reassure the fencer. But no fencer should ever become *that* dependent upon a coach.

Need for Analysis

The alternative to that kind of dependency is the development in each fencer of the ability to observe and critically analyze opponents. The fencer must be encouraged to analyze competitors when fencing others as well as to analyze an opponent during a bout. The coach can accomplish this by doing the following: (1) Require each fencer to keep during competitions a small notebook in which the fencer lists each of the opponent team's fencers and the specific attacks, guard(s), defenses, style, weaknesses and strengths that each opponent displayed in bouting. (2) Allow time just before and/or just after a competition for a full team combat analysis ("skull practice") session during a practice. The coach, who will also keep a notebook on opponents, and the team members will compile their observations and devise specific offense and defense strategies. They will then drill these strategies to assure that they become confident in their execution before they meet these same opponents again, or

other opponents with similar styles. (3) Recognize that beginning fencers will be overwhelmed by some of the theory and more sophisticated attacks, they will early become aware that fencing is very much more than mere practice and drill and will probably develop even more enthusiasm for the sport. (4) Recognize that some students will be very strong in the execution of fencing technique, but lack the ability to analyze an opponent. They can be helped a great deal by a rapport established in an ongoing, give-and-take analysis that will make them more receptive to advice during the pressure of a time-out during a bout. (5) Supply a list of clearly defined fencing terms to be sure fencers are in agreement when discussing tactics.

Some General Questions For Judging Opponents

1. Is opponent a lefty or a righty?
2. What guard does opponent use *most?* (4 or 6 or low line 7 or 8?)
3. Is the student an *offensive* fencer? (Is the attack immediate when the director says fence? Does the fencer move in slowly and test before attack? Are the attacks simple or complex? Does the fencer rush in and constantly press the attack until a "halt" is called?)
4. Is the student a *defensive* fencer? (Can the student use low line as well as high line parries? Does the student counter-parry? Disengage after a parry? Retreat with the parry? Use second intentions?)
5. Does the student balance *offense* with *defense* as the bout demands?
6. Does the student footwork follow a pattern or is it erratic? (Will the fencer follow your footwork? Does the fencer retreat with parries? Are the fencer's attacks or ripostes short of the target often? Does the fencer lunge fully?
7. Does the fencer *follow* your blade? (To what extent? Does the fencer fail to parry at all before riposting, or parry with slow or inaccurate ripostes?)
8. Does the fencer *stop-thrust* often? (Does the fencer use them appropriately or indiscriminately, and are they accurate on target? Does the director allow the stop hit as "in time"?)
9. Does the fencer have stamina? (Does the fencer tire easily, or during a long bout do the fencer's form and control waver?)

Fencers must be aware that for each of the above answers there is an appropriate and effective counter move that can be used to advantage. Most high school fencers have only a few, usually easily recognizable, styles. Find them out and design your own strategy to win, then drill to perfect it, keeping in mind that opponents will

change. Be flexible and alert. Also remember that *they* will be analyzing *you*.

Fencers can be given these nine questions on mimeograph sheets with spaces for answers and then the coach can set up bouts and the observers can practice analyzing teammates by comparing both analysis and suggested solutions that each opponent "shoulda-coulda-woulda" used. Everybody benefits and begins to look at criticism as part of growth as a fencer, and at analysis and drill as the key to that growth. Keep a large poster with these questions and some suggested countermeasures displayed at regular practices.

Testing Your Opponent

The key to successful analyzing during your bout is to devise a way of testing your opponent without getting hit. Although testing can be more difficult with a highly aggressive opponent, it can be done with all opponents. Watch your distance during testing! For testing your opponent's reactions to the foil, as indicated in questions 3, 4, 7, and 8 above, you can do a second intention; offer your blade, thrust into various lines (4, 6, 7, 8), beat, or counter, etc.; then note your opponent's reaction. If your opponent reacts this way several times during the bout you can assume your opponent will do so again so devise the best countermove to score. Be careful not to become so absorbed with the testing that you are off guard to an attack.

To test footwork, do several advances and retreats and watch to see if the opponent reacts and follows your movements and rhythm. If so, plan footwork that will lead the opponent to *close the distance* by mobility patterns that you will purposely break midway. For example, take two long advances and as the opponent moves back in two retreats, do a short retreat. As the opponent begins to *follow* with an advance, thrust and lunge with a simple attack. The opponent should have moved into range without realizing it. The mobility can be varied to suit the opponent's tendencies, that is, the opponent may take small advances and big retreats. Be very careful not to make your mobility patterns too obvious, as this can work against you, if not with the current opponent, then with the other fencers you will meet next on the strip. This precaution should be remembered with all of your testing: Be subtle.

In Figures 1 and 2, is opponent's guard *clearly* in 4 or 6? If not, you can attack or feint into either guard because no line is closed. Some fencers allow their guard to drift to the middle. Take advantage of this. Also, note when the fencer extends and lunges, or opens up any line. Does the fencer drop a shoulder, thus opening high 6, or raise an arm and leave the low 8 line open, or under arm 6? Plan

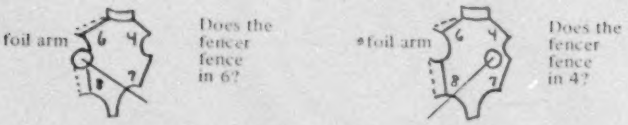


Figure 1. Facing a Right-hander.

accordingly. When a righty fences a lefty there are several things to keep in mind. Remember that the *closest* target for them *both* to hit is *under the arm*, the *shoulder*, or the *back*, since their body positions and angle are different from two righties or two lefties fencing each other. The lefty is usually more attuned to this distance variation than the righty, but is often at a disadvantage with another lefty. The variation can serve both lefty and righty if both are aware of it. Since both are vulnerable or closer in the 6 and 8 area, both should plan to get the opponent to react to open up these lines. Test her and use the observations suggested in questions 1-9 above.

The following are several possible offensive and defensive combinations lefties and righties may use on each other.

A. Advance w/beat, *extend* into 7 or 8 depending on the fencer's guard. If the fencer parries high, disengage *under* the fencer's blade and hit the opened area. If the fencer parries low line, disengage *over* the fencer's blade and hit. If the fencer does not react at all, try a balestra straight attack. If the fencer simply retreats, use mobility to close the distance and hit in the open area.

B. If the fencer is a blade-follower, hold your arm in your 6 line with your point up and out to the fencer's *left* if a lefty, or *right* if a righty. As the fencer tries to beat it, disengage *under* the fencer's blade, and thrust to area under the fencer's arm – 6 or 8 – to hit. A variation of this attack is to hold your arm in your 6 line with the point down and to the left or right as above, and if the fencer drops to a wide attempt to parry, disengage *over* the fencer's blade and hit in *high* 6.

Figure 2. Facing a Left-hander.

C. Use the 1-2 attack: do the *1* into the fencer's 4 if the fencer is in 6 and the *2* into the underarm or back; *or* do the *1* into the fencer's 6 if the fencer is in 4 and disengage and hit in 7.

D. Try a change-beat, 1-2: engage the fencer in *outside* 6, change-beat, extend low into open 7, and as the fencer goes to parry do the *2* into the fencer's 8 or 6 depending on the opening.

E. Try a *beat*, 1-2: beat, *1* into 4 line, deceive into 6 or 8 depending on how the fencer parries and opens up.

F. Try a beat 1-2-3: beat *1* into the fencer's 4 line, deceive into 6, then disengage to hit 4 or 7.

G. Press, disengage, hit: engage the fencer's blade in outside 6 if the fencer is in 6 *or* outside 4 if the fencer is in 4. *If* the fencer returns the pressure *a bit*, quickly disengage into the *open* line. Watch out for a possible stop-thrust. Do only with opponents who tend to repeatedly return pressure.

The purpose of the above is simply to reorient the fencer to the changes that must be considered when a lefty meets a righty. The foil arm itself becomes an asset or liability as the logistics are reassessed so experiment, test, and learn.

What to Do and When to Do It

The following offense and defense actions are suggested to deal with the results of your testing and observation related to questions 1 to 9 above, with any fencer, but particularly two *righthanders*.

Defense

1. The "second intention": It is a feint by you with *any* of the simple attacks. Wait for the opponent to parry, riposte; you retreat and parry the riposte and *hit* directly or after a disengage.
   WHEN? Use with an opponent who
   (a) is usually short on lunges when attacking;
   (b) is usually too out-of-distance for you to hit on your attacks;
   (c) repeatedly attempts to use the stop-thrust.
   It tends to lure opponent closer. Be careful not to get hit when you are doing the feint. Make the distance work to your advantage.
2. The stop-thrust: It is a counterattack made on an attack. The *stop in time* must touch before the attacker has commenced the last movement of the conclusion of the composite attack.
   WHEN? Use with an opponent who
   (a) attacks into your *closed* guard line;
   (b) does slow, wide, hesitant composite attack, especially with disengages.

Avoid if the opponent beats your blade on attacking, as the director will not call the stop thrust in that case even if the opponent's extension is a bit slow. Also do not use it if the opponent is setting *you* up with a second intention.

3. Press-parries: It is an engagement of the attacking blade when it has been extended, followed by you pressing it into another line, then riposte. Blade contact may be lost just before the hit; pressure-parry-ripost *or* pressure-parry-disengage-riposte.
   WHEN? Use if the attacking opponent
   (a) seems weak or overtired when engaging your blade;
   (b) repeatedly engages your blade in pressures.
   Avoid if the opponent is strong or if the opponent thrusts immediately upon a pressure.
4. The bind: It is a pressure-parry which engages the attacker's extended foil beginning with a closed line (parry) and moves into another closed line, for example, 4-8 or 6-7. To do the bind, engage the tip one-third of opponent's *extended* blade with the guard half of your blade. As you move forward, use wrist action to force the opponent's (for example, pressure-parry) blade down and around toward your opponent's *outside line* as you extend. It is not a full circle, but about one-half to three-quarters. There must not be any loss of contact between the blades.
   WHEN? Use with an opponent who
   (a) has a habit of usually fencing with the arm fully extended;
   (b) is short of the target on attacks.
   Do the bind *only* on an extended arm.

The Bind

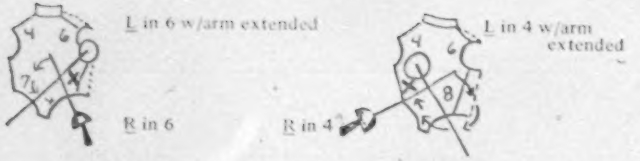


Figure 3. Righty (R) vs. Lefty (L).

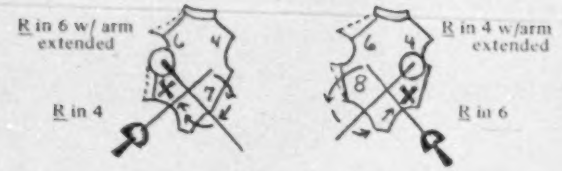


Figure 4. Righty vs. Righty (R)

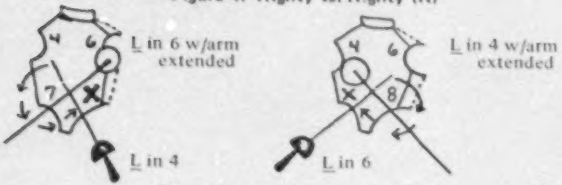


Figure 5. Lefty (L) vs. Lefty (L)

In Figures 3, 4, and 5, the black foil is doing the bind. The letter L refers to lefty and R to righty. The purpose of these three sets of illustrations is to point up the adaptations a fencer must make as opponents vary in handedness. The principle applies to all offensive and defensive actions. The dotted line with the arrow indicates the direction that you move the opponent's blade as you envelope to *close the opponent out* and *hit* (X).

Offense

1. Disengage attacks: The 1-2, the 1-2-3, the double, the coupé.
   WHEN? Use with opponents who
   (a) follow your blade;
   (b) have wide parries;
   (c) parry but fail to extend and riposte;
   (d) do not have competence or knowledge of low line parries.

   Avoid using with opponents who stop-thrust in time, or who may be setting you up with a second intention and planning counter-parry-riposte. In other words, don't overuse this type of attack.
2. Beat or change-beat attacks: The beat, extend; the beat, disengage; the change-beat extend or disengage; etc.
   WHEN? Use on opponents who
   (a) tend to attack simultaneously with your attack;
   (b) attempt the stop-thrust often;

(c) disengage your attack, instead of parrying it – note the pattern of their disengages first so as to catch them.

3. Composite attacks: The beat, extend, 1-2; the change-beat, extend 1, 2-3; the change-beat, disengage, extend 1-2; the change-beat, change-beat, extend, disengage; etc.
   WHEN? Use with the opponent who follows the blade. Use rarely and after much drill. Remember that the opponent must react predictably to each part of the composite attack for it to work. With the speed and accuracy required by the electrical machines it is best to keep attacks simple.
4. Glide attacks, or attacks in opposition: Engage, press, extend (glide), lunge and hit 4 or 6 but don't lose the opponent's blade; engage, press-disengage, extend with lunge and hit.
   WHEN? Use with opponents who allow you to engage their blades and who return a bit of pressure as you apply it. Keep your pressure *light*. This is not the pressure attack that moves the opponent from one line to another as in the bind.

The suggestions above are not intended to be comprehensive but to give the coach and fencers the idea that analysis and strategy go hand in hand. Students have to be constantly reminded of this, and various diagams such as those above can be helpful if put on large poster boards and displayed in the practice area, along with a list of some of the more common analysis techniques.

The day your fencer returns from a bout and says, "I knew my opponent would go for the 1-2 but I was short on my lunge. *I'll have to work on* my mobility." Or "My opponent attacked using the change-beat, disengage into my 6 and 8 lines. *Can I drill* some counter-parries and low line parries." You will know then that you have developed an independent, analytical fencer.

Organizing and Maintaining an Interscholastic Fencing Team

PATRICIA A. CLAPP

Patricia Clapp's biographical sketch appears on page 114.

Many amateur and newly professional high school coaches know how to fence and coach, but need help developing a workable, ongoing organization for their varsity and junior varsity teams. A competitive interscholastic program, especially on the high school level, burdens the coach/advisor with a multitude of considerations and decisions. Two years of intercollegiate fencing had not prepared me for coaching and organizing the 80 girls who turned out for our first practice! Only 12 girls finished the season and we competed in *one* competition. It became obvious that a better system was needed.

The original program has been modified since. The first year(s) of building a strong, enthusiastic nucleus of fencers is the hardest. The need for a well-organized system has two advantages:

(a) If a coach at any time leaves the team (which happens often in fencing), it is easier for a new coach to take over or a temporary advisor to function without loss to the team's schedule.

(b) It encourages a sense of teamsmanship in the fencers and respect from challenging teams.

In talking to coaches, four areas of concern recur: (1) The need for a suitable place to practice since other activities compete; (2) budgetary considerations, especially with electrical equipment costs, transportation, and director's fees; (3) adequate competition, requiring effort to establish contacts and persistence in finding and encouraging fencing in area schools; (4) maintenance of interest over the prolonged season – interest is high at first and tends to dwindle if not refueled in various ways. The following outline deals with these areas and more. A school board is more likely to support a well-organized program that attracts student interest.

Duties of the Advisor-Coach of Fencing

The coach is responsible for maintaining the school's high standards of good sportsmanship, determining the length of the season, establishing practice times, and preparing the budget and inventory of equipment. The coach should see to it that all fencers and officers are fulfilling their jobs, that team members are present at all practices and working during practice. The coach should foster good communications between coach, team, and among teammates.

It is the coach's responsibility to see to it that all fencers are following safety measures at all times. It is also important that all fencers have a copy of the season's schedule of competitions including those of the state AFLA.

Student Leadership – Team Officers

The greatest asset and help a coach has is the energy and talent of the team members. Their existence as officers with specific duties guarantees the continuity of the team should the coach be changed. Selection should be by secret ballot after open nominations by the team members at the end of a season for the following year.

Fencing Tryouts for the Team

Tryout time is usually in mid-November. Arrange to use a large area at least for the first few days to organize. Then you can move to another area(s). Post notices of impending tryouts in the school paper, announcements, bulletin boards and locker rooms. Give the new candidates at least three weeks to learn the fundamental advance, retreat, en garde, balestra, four guard, six guard, and some very simple moves such as beats, disengages, parries. If you have a nucleus of fencers from a previous year, utilize their abilities in training and selecting new fencers. Because of the individual nature of fencing, selecting a small squad of between 25 and 30 is maximum for one coach. At the finals of tryouts, therefore, choose those who can take criticism and who are willing to attend the required practices. Tell this to the aspiring fencers beforehand and give them a list of fencing terms to learn and their obligations. Some attrition will occur during the year for various reasons.

Check the school's qualifications for students who compete on interscholastic teams. Each student must have a school physical and a release from parent or guardian before fencing. Usually all fencers must have school insurance or a signed release from responsibility for the parent. Check with the school's athletic director on these items.

Practices

A. *Place:* This can be the problem. Don't despair. Request an area large enough for foil work by as many fencers as you have, so that you can keep them in your sight. This is a reasonable request, considering coach's safety liability. If you get only half the space you need in one place, do the foil work there, and send half the team to practice footwork, warm-ups etc., in another area that does not need as close a supervision.

B. *Procedures:* The captain will lead the warm-ups; try 15 minutes of mobility with foil. After this half hour, the students can break up into two main lines facing each other for mass drills. One line is called A and the other line B. After a demonstration of a new action, the lines are to practice drill. At the start of each season each varsity student is assigned one or two junior varsity fencers to sponsor. She will give each one individual instruction and drill and report their progress and/or problems to the coach. The coach will give general directions, check progress and give as many individual lessons as possible during practice.

C. *Practice* times can be staggered between the varsity and the junior varsity if space and equipment are in short supply.

D. *Safety instructions:* Never to be underestimated, the dangers of mistaken handling of the foils must be made clear to all fencers. Points are to be kept to the ground at all times unless fencing or drilling. Masks are to be worn whenever fencers are working in opposition with foils. This applies to coach and students. Violators will be denied foils for a week, if not permanently. This must be stated from the first day onward.

E. *Combat analysis.* See preceding article, "Combat Analysis and Strategy."

Arrangement and Hosting of Meets

The director of athletics will send out contracts to some schools for a home and an away meet. They will respond. Some meets will have to be arranged during the season by the coach on her/his own initiative with new schools adopting fencing, etc. College scrimmages with the freshman, junior varsity or varsity teams may be arranged with the coaches if they are within reasonable traveling distance. Most are willing to meet, especially if there is little competition for the high school in the area.

A. *Home meets.* Secure the needed space with electrical outlets and good lighting well in advance through the proper channels in your school. Arrange in advance to get a director through the AFLA or area colleges. If the director is paid, be sure to arrange for this. Have the team secretary arrange for students to bring and prepare oranges for both teams and distribute them during the meet. (Be sure to clean up afterwards.) Varsity and junior varsity meets are handled in the same manner, budget and space permitting. Provide scoresheets, a blackboard-scoreboard, timers, pencils, tables and chairs, a strip or proper markings on the floor, tape for blades, a small screwdriver for loose screws, an emery cloth or fine sandpaper for rusty bell guards and blades and rubber bands for long hair.

B. *Away meets.* Arrange for transportation with the school for a bus if available, or your own car and that of parents. (Be sure you

carry extra insurance if you drive your car.) Check to see that all needed equipment is taken with you, and carefully marked. Check for equipment before leaving the host school. Take whatever electrical machines and reels you have to back up the host school or to run varsity and junior varsity simultaneously. Take record sheets to record fencers' bouts at the meets.

C. *Departure.* The coach is to see to it that every fencer has a way home and is not to leave the school until they have all gone.

The Budget

If you are under the school athletic program, the budget will have to be made out a year in advance for equipment and expenses and pending approval of the Board of Education. The school purchaser will shop for the best bargains unless you specify no substitutes for certain brands of equipment. This can be crucial, especially when ordering replacement parts, so be specific. The deadline is early in the school year, September or October. If you are adding to existing equipment, have an accurate inventory to determine your most pressing needs, and items of frequent breakage or loss. If you are starting from scratch and your team fences electrically, you need to decide areas of priority and numbers of fencers to be fully equipped for the first year. Plan on building up your supply of equipment over several years. Check with school athletic booster clubs who may be willing to donate money for some of the large machines, reels or a strip, or anything.

A typical budget should include consideration of the following needs, numbered in order of suggested priorities:

1. Uniforms – full jackets with groin strap, masks, gloves, underarm protectors, metal breast protectors, fencing pants and sox, wrist straps.
2. Practice equipment – electrical practice foils, padded plastrons, targets.
3. Electrical equipment – foils, body cords, lamé jackets, reels, reel wires, and a scoring machine, equipment bags and boxes.
4. Reconditioning (of masks) and repairs of electrical equipment.
5. Directors' fees for home meets.
6. Transportation to away competitions or vouchers for gas mileage.
7. Fencing strip.
8. Timers, scoresheets, manuals, rule books, tape, money for custodial services.

The needs of left-handed fencers must be considered, perhaps with lamé jackets that zip in the back, in ordering gloves, foils, and jackets. Also, sizes ought to be somewhat larger because high school students grow a great deal in three or four years. Do not buy jackets

smaller than size 34 and preferably get 36 and 38 sizes and a few 40s. Obtain a price catalog from a large fencing supplier and be prepared to juggle and compromise a bit.

Fencing Demonstrations

Each year the team travels to interested high schools and grammar schools to explain and demonstrate fencing. They also provide workshops when requested to do so. They participate with the boys' fencing team in school assemblies to promote interest and understanding of the sport of fencing among the student body. Often new teams in area schools will be the result, thus expanding competition and inspiring great pride in the team giving the demonstration.

Amateur Fencers League of America (AFLA)

Encourage fencers to consider joining this organization and to fence in its high school level meets. Do not make it mandatory, but do acquaint them with AFLA. Membership is reasonable for students in this age group. The AFLA can be very helpful in setting up large competitions and supplying directors for meets.

Fencing Visual Aids

SUZANNE TYLER
University of Maryland

Basic Training of Foil Fencing. 16mm, sound, b&w; 22 min. Sale $135. Rent $12. Prepared by the Hungarian College of Physical Education in Budapest. Presents fundamentals from en garde position illustrating advance, jump-lunge, distances, parries, ripostes and various engagements in slow-motion, still and trick shots. Order from University of California, Extension Media Center, 2223 Fulton St., Berkeley, CA 94720.

Beginning Fencing. 35mm, sound/silent, color, accompanying sound record. Sale, sound, $51.75, silent $46.25. Rent $3. Covers introduction, equipment, elementary offense and defense, strategy and tactics. Prepared by Maxwell Garret. Order from Society for Visual Education, 1345 W. Diversey Parkway, Chicago, IL 60614.

Directing Electric Foil. ½" SONY videotape, sound, b&w. Sale $30. Rent $10. Prepared by Emily B. Johnson. Thirty minutes of action, interpretation and discussion of rules with Maxine Mitchell directing. Michael D'Asaro commenting and Carl Borak and Harriet King demonstrating. Order from Emily B. Johnson, 1250 Ellis St., Apt. 11, San Francisco, CA 94109.

Fencing – 1964 Olympics – Tokyo, Japan. 16mm, silent, b&w. Rent $5. Covers men and women training, complete competitive bouts of world's best fencers, plus victory ceremony. Order from AFLA, 249 Eton Pl., Westfield, NJ 07090.

Fencing with the Foil. Super 8mm, color, cartridge loops. Sale $18.95 per loop or complete set of 19 for $342. Prepared by Michael Alaux, 1968 U.S. Olympic foil team coach; Michael Gaylor, 1967 NCAA foil champion; and Anne Seppala, 1969 captain, Hunter College fencing team. Order from The Atlantic Institute, 805 Merchandise Mart, Chicago, IL 60654.

Foil Fencing: Directing and Judging. 16mm, sound, color, 33 min. Sale $350. Rent $24.95. Prepared by Sue Pernice as part of her doctoral dissertation. Provides basic criteria for practice in directing and judging. Order from Audiovisual Center, University of Iowa, Iowa City, IA 52240.

Foil Fundamentals. 16mm, silent, b&w. Rent $5. Covers salute, en garde, foot-work, attacks and parries, with interspersed descriptive titles by George Santelli. Order from AFLA, 249 Eton Pl., Westfield, NJ 07090.

Modern Foil Techniques. Super 8mm, color, cartridge loops. Sale $22 per loop or complete set of 20 for $380. Prepared by Charles

A. Selberg, world masters foil team champion. A study guide accompanies each loop. Subjects progress from grip and en garde to balestra and attacks into tempo. Order from Bill Snyder Films, P.O. Box 2784, Fargo, ND 58102, or from American Fencer's Supply, 2122 Fillmore St., San Francisco, CA 94115.

Omnibus. 16mm, sound, b&w. Rent $5. Prepared by the Ford Foundation in 1956 for television. Suitable for general audiences to arouse interest in all types of fencing. Order from AFLA, 249 Eton Pl., Westfield, NJ 07090.

Techniques of Foil Fencing. 16mm, 10 min. 1942. Closeups of footwork in advance, retreat, a lunge, and jump lunge. Shows simple attacks, parries and counter-parries. Rental available from University of California, Extension Media Center, 2223 Fulton St., Berkeley, CA 94720.

Sabre and Foil. 16mm, 7 min. 1967. General technique movie of fencing competition in Montreal. Available from Public Library of Metropolitan Toronto, Toronto, Ont., Canada.

Fencing Bibliography

SUZANNE TYLER
University of Maryland

Books

Alaux, Michel. *Modern Fencing: Foil & Saber From Initiation to Competition.* $12.50. Totowa, NJ: Charles Scribner & Sons, 1975.

Amateur Fencers League of America. *Fencing Rules and Manual,* 1970. Order from Irwin F. Bernstein, Secretary, AFLA, 249 Eton Pl., Westfield, NJ 07090. 1970.

Anderson, Bob. *All About Fencing.* $4.50; paperback, $1.65. NY: Arco Publishing Co., Inc. 1970.

Bower, Muriel and Mori, Torao. *Fencing.* 2d ed. $1.95. Dubuque, IA: Wm. C. Brown Co., 1972.

Castello, Hugh and Castello, James. *Fencing.* $6.50. Order from Castello Fencing Equipment Co., 836 Broadway, N.Y., NY 10003, 1962.

Castle, Egerton. *Schools and Masters of Fence from Middle Ages to the Eighteenth Century* (casebound). $20.00. 1969. Order from George Shumway, R.D. 7, York, PA 17402.

Corsnier, Roger. *Fencing with the Electric Foil.* Cranbury, NJ: A.S. Barnes, 1969. Available from American Fencer's Supply, 2122 Fillmore St., San Francisco, CA 94115.

Crosnier, Roger. *Fencing with the Foil: Instruction and Technique.* London: Faber and Faber, 1967.

Curry, Nancy L. *Fencing.* Pacific-Palisades, CA: Goodyear Publishing Co., 1969.

DeBeaumont, C.L. *Fencing, Ancient Art and Modern Art.* $8.95. New York: A.S. Barnes, 1971.

DeBeaumont, C.L. *Your Book of Fencing.* $4.25. Order from Transatlantic Arts, Inc., N. Village Green, Levittown, NY 11756.

Deladrier, Clovis. *Modern Fencing* (revised). Paperback, $4.95. New York: Arco Publishing Co., Inc., 1972.

Garret, Maxwell R. and Heinecke, Mary. *Fencing.* Boston: Allyn and Bacon, Inc., 1971.

Geraci, A. John. Fencing. In *Modern Physical Education,* edited by Gerald J. Hase and Irwin Rosenstein. New York: Holt, Rinehart & Winston, 1966.

Moody, Dorothy L. and Hoepner, Barbara J. *Modern Foil Fencing – Fun and Fundamentals.* 1972. Order from B & D Publications, 6645 Heather Ridge Way, Oakland, CA 94611.

Nelson, Marvin, and Reiff, Rick. *Winning Fencing.* $8.95; paperback. $4.95. Chicago; Regnery Henry Co., 1975.

Palffy-Alpar, Julius. *Sword and Masque.* Philadelphia: F.A. Davis Co., 1967.

Selberg, Charles A. *Foil.* Paperback, $4.95. Boston: Addison-Wesley Publishing Co., 1975.

Simonian. *Fencing Fundamentals.* Paperback, $2.95. 1968. Order from Merrill Publishing Co., (Division of Bell & Howell), 1300 Alum Creek Drive, Columbus, Ohio, 43216.

Thimm, Carl A. *A Complete Bibliography of Fencing and Duelling.* Reprint of 1846 ed. NY: Benjamin Blom, Inc., 1975.

Wyrick, Waneen. *Foil Fencing.* Philadelphia: W.B. Saunders Co., 1971.

Technical Rules of Fencing

Edited by DENISE O'CONNOR

Denise O'Connor is assistant professor in the Department of Health and Physical Education at Brooklyn College where she coaches the women's fencing team. Both her B.S. and M.A. degrees were earned at Jersey City State College, New Jersey. She was a member of the 1964 Olympic team and has been a nationally ranked fencer since 1960. She has five times led the Salle Santelli women's team to a national championship. Currently she is the advisor for the National Intercollegiate Women's Fencing Association and is a member of the United States Commission on Fencing Rules and Officiating. Through workshops and demonstrations, she has been active in the promotion and teaching of fencing.

Introductory Note

The technical rules of fencing which appear on the following pages have been abridged and excerpted from the AFLA *Fencing Rules for Competitions (1974)*. This new edition, published by the Amateur Fencers League of America, comprises an extensive almanac of history, terminology and rules and records of fencing. We thank the AFLA for permission to print this abridgement from their copyrighted material. Special acknowledgment is given to Joseph A. Byrnes for the English translation of the international (Fédération Internationale d'Escrime) rules and for his assistance in the preparation of the *NAGWS Fencing Guide*.

Since modern competitions are conducted with the electrical apparatus, basic rules have been included for running contests with the "electrical" foil. It should be noted that the AFLA is a member of the FIE, the United States Olympic Committee (USOC), and the Amateur Athletic Union (AAU). The AFLA maintains close relations with the National Collegiate Athletic Association (NCAA), the National Intercollegiate Women's Fencing Association (NIWFA), the Intercollegiate Fencing Association (IFA) and several regional intercollegiate associations whose respective jurisdictions of fencers in their member colleges are explicitly recognized.

The traditionally close cooperation between amateurs and their fencing masters was formalized in 1953 by the adoption of constitutional amendments creating the associate membership, open to nonamateurs. Most of the active fencing teachers in the United States are associate members of the AFLA and enjoy voting privileges. The AFLA also maintains close liaison with the National Fencing Coaches Association of America (NFCAA).

Changes are indicated by shading.

For a continuing and thorough understanding of rules and changing times in fencing, it is recommended that the readers obtain a copy of the *AFLA Fencing Rules for Competition* (1974). Copies may be purchased from the secretary, Amateur Fencers League of America, Inc., 249 Eton Place, Westfield, New Jersey 07090.

In order that the readers may move smoothly from this abridged form of the rules to the *AFLA Fencing Rules for Competition* (1974), the parts, chapters and articles of these rules are numbered the same as in the *AFLA Fencing Rules for Competition* (1974).

PART ONE:

General Rules and Rules Applicable to all Three Weapons

CHAPTER III – TERMINOLOGY

A. DIRECTOR (PRESIDENT OF THE JURY)

3 Throughout the text of the present rules, the word Director will be used to mean "Director of Combat" or "Président de Jury" (the latter is the French term used internationally).

B. COMPETITIONS

§1. Free play and bout

4 Friendly combat between two fencers is called "free play" ("assault"); when the score is kept in a competition, it is called a "bout" ("match").

§2. Team match

5 The total of bouts between the fencers of two different teams is called a "match" ("recontre").

§3. Competition

A competition is the aggregate of the bouts (in an individual competition) or of the team matches (in a team competition) necessary to determine the winner of the competition ("épreuve").

Competitions are classified according to the weapons, the sex of the competitors, or their age, or their occupations (members of the armed forces, students, etc.), and by whether they are competitions for individuals or for teams.

Competitions are said to be "by direct elimination" when the competitors are eliminated upon their first loss (or after their second if the rules provide for a repechage table); a "pool" ("poule"), on the other hand, is a group of several competitors (or of all the

competitors) who all fence each other successively to determine their respective classification.

§4. Championship

7 Championship ("championnat") is the name given to a competition held to ascertain the best fencer or the best team in each weapon, within a sports organization, in a given area, and for a set period of time.

§5. Tournament

8 Tournament ("Tournoi") is the name given to the whole of the competitions held at the same place, in the same period of time, and on the same occasion.

C. EXPLANATION OF CERTAIN TECHNICAL TERMS MOST OFTEN USED IN JUDGING FENCING

§1. Fencing time

9 Fencing time (or: period of fencing time; "Temps d'escrime") is the time required to perform one simple fencing action.

§2. Offensive and defensive actions

10 The different offensive actions are the attack, the riposte, and the counter-riposte.

The *attack* is the initial offensive action executed by extending the arm and continuously threatening the opponent's valid surface (target) (see 233ff, 417ff).

The *riposte* is the offensive action made by the fencer who has parried the attack.

The *counter-riposte* is the offensive action made by the fencer who has parried the riposte.

The different actions are the parries.

The *parry* ("parade") is the defensive action made with the weapon to prevent the attack from touching.

Parries are *simple*, or direct, when they are made in the same line as the attack.

They are *circular* (counter) when they are executed in the line opposite to that of the attack.

11 Offensive Actions:

a) *Attack or riposte*

The action is *simple* when it is executed in a single movement; either *direct* (in the same line), or *indirect* (in another line).

The action is *composite* when it is executed in several movements.

b. *Riposte*

The riposte is *immediate* or *delayed* ("à temps perdu"); this is a question of fact (what action is performed) and of the speed of execution.

Examples:

1. Simple direct ripostes:

Direct (straight) riposte: a riposte which touches the opponent without having left the line in which the parry was made.

Riposte along the blade: a riposte which touches the opponent by gliding along the blade after the parry.

2. Simple indirect ripostes:

Riposte by disengagement: a riposte which touches the opponent in the line opposite to that in which the parry was made (by passing beneath his blade, if the parry was in the high line, and over the blade, if the parry was in the low line).

Riposte by coupé (cutover): a riposte which touches the opponent in the line opposite to that in which the parry was made (in all cases, by passing the blade over the opponent's point).

3. Composite ripostes:

Riposte with a double: a riposte which touches the opponent in the line opposite to that in which the parry was made, but after having described a full circle around the opponent's blade.

Riposte by one-two: a riposte which touches the opponent in the line in which the parry was made, but after having first been in the opposite line, by passing under his blade.

And so forth.

§3. Counter attacks

12 Counter attacks are offensive or defensive-offensive actions executed during the opponent's attack:

a) The *Stop* (stop thrust or cut): is a counter attack made on an attack.

b) The *Stop with opposition* (formerly called the "time thrust" or "time hit"): is a counter attack executed while closing the line in which the opponent's attack will be terminated (see 233ff, 329ff, and 418ff).

c) The *Stop in time:* is made with a period of fencing time (see 236, 421).

§4. Kinds of offensive actions

13 a) *Remise*

The remise is an immediate simple offensive action which follows an original action; it is made without withdrawing the arm, after the opponent's parry or retreat, either because the latter gives

up contact with the blade without riposting, or delays his riposte, or attempts an indirect or composite riposte.

b) *Redoublement*

The redoublement is a new action, either simple or composite, made against an opponent who has parried without riposting, or has simply evaded the first action by a retreat or a displacement.

c) *Reprise d'attaque* (retaking of the attack)

The reprise is a new attack executed immediately after a return to the guard position.

d) *Counter time*

Counter time describes every action made by an attacker against his opponent's stop.

CHAPTER IV – FIELD OF PLAY ("TERRAIN")

14 - The field of play must present an even surface. It may not offer either an advantage or a disadvantage to either of the two competitors, particularly as regards gradient or light.

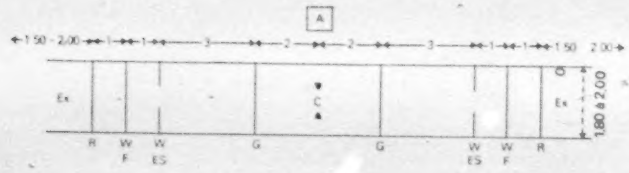
15 The portion of the field of play used for fencing is called the strip ("Piste"). The strip may be of earth, wood, linoleum, cork, rubber, plastic, metal, metallic mesh, or of a material with a metallic base.

The width of the strip is from 1.8 (5'10") to 2 meters (6'7"); its length for foil is 14 meters (45'11").

Besides the length specified, the strip should be extended at each end by 1.5 (4'11") to 2 meters (6'7"), to allow the fencer who is going to cross the rear limit to retreat over an even and unbroken surface.

If, for practical reasons, the strip cannot be of the regulation length, its length may not in any case be less than 13 meters (42'3"), including the extensions mentioned above.

PLAN OF THE USUAL 3-WEAPON STRIP



A Table for scoring machine
C Center (line)
G On Guard lines
Ex Extension
W/F Warning line, foil
W/ES Warning line, épée and sabre
R Rear limit, all weapons

In electric foil and épée, the metallic strip must cover the full width of the strip and its full length, including the extensions at the ends (see 711).

Note: The figures on the plan indicate the dimensions in meters.

CHAPTER V – FENCERS' EQUIPMENT

§1. Responsibility of fencers

16 Fencers arm, equip and clothe themselves and fence on their own responsibility and at their own risk and peril.

§2. Inspection ("Contrôle") of fencers' equipment

17 Fencers are responsible for the condition of their gear (weapon and other equipment and clothing) at the moment they appear on the strip.

B. ORGANIZATION OF INSPECTION

18 Before each bout and at each change of weapon, the Director will check the insulation of the wires inside the guard and the strength of the point spring in electric weapons.

19 Before the beginning of each pool, each team match, and each bout in direct elimination, the Director, under the supervision of a member of the Bout Committee or of a qualified delegate, will assemble the fencers in order to verify:

– that in electric foil the metallic vest conforms to Article 216 with the fencer in the various positions: standing, on guard, and in the lunge.

– that each fencer is wearing, under the jacket, a regulation protective undergarment.

§3. Non-regulation equipment

21 Under whatever circumstances a fencer on the strip is found to be in possession of non-regulation or defective equipment, that equipment will be immediately confiscated and turned over to the experts on duty for examination.

A. If preliminary inspection of equipment has been carried out:

1. When a fencer appears on the strip:
– with a non-working weapon or body wire, or
– without a protective undergarment, or

– with a metallic vest that does not completely cover the valid surface, the Director will give the fencer a warning valid for that pool, that team match, or during the direct elimination bouts.

In case of repetition, he will impose one penalty touch for each offense.

2. When in the course of a bout an irregularity is demonstrated that could have arisen from the fencing:

Example: spring pressure having become insufficient, the Director will impose neither warning nor penalty. Moreover, a valid touch that has been scored with a weapon that has thus become defective will be awarded.

§5. General requirements for clothing and equipment

27

3 All garments must be white or of a very light tint. They must be made of sufficiently strong material and be in good condition.

The material used for equipment shall not present a slippery surface capable of making the point or button glance off; the judging of touches shall be facilitated as much as possible.

4 The bottom of the jacket must overlap the trousers by at least 10 cm when the fencer is on guard.

The wearing of a protective undergarment is mandatory. The jacket and the collar must be completely closed and buttoned.

Women's equipment, in addition, must include in the jacket a breast protector of metal or some other rigid material.

5 The trousers (knickers) must be fastened below the knees. If the fencer wears long trousers, the bottoms shall either be buttoned or fastened above the feet.

With knickers, the wearing of a pair of white stockings is mandatory. They must cover the leg entirely up to the knickers and be fastened so that they cannot fall down.

6 In all weapons the cuff of the glove must always entirely cover the lower half of the forearm of the fencer's sword arm to prevent an opponent's blade from entering the sleeve of the jacket.

7 The mask must be formed of mesh wherein the openings between the wires are at most 2.1 millimeters and of which the wires are of a minimum diameter of 1 mm before timing, which should be carried out by a hot process after the mesh has been shaped.

In foil, the mesh of the mask must be insulated inside and out.

The bib and trim must be white or of a very light tint.

CHAPTER VI – FENCING ("COMBAT")

§1. Manner of fencing

28 Competitors fence in their own style and at their own risk and peril, on the sole condition that they observe the fundamental rules of fencing.

All fencing must, nevertheless, maintain a courteous and honest character. All violent actions (a flèche ending by jostling the opponent, disorderly play, abnormal displacements, any actions that the Director judges dangerous – for example, a running attack involving loss of balance, hits brutally delivered), are expressly prohibited.

The fencer on the strip must keep his mask on until the decision has been given by the Director.

§3. Manner of holding the weapon

30 Defensive actions are performed exclusively by the guard and the blade, used either separately or together. In the absence of a special device or attachment, the fencer is free to hold the hilt as he pleases and may likewise, in the course of a bout, change the position of his hand. However, the weapon may not, permanently or temporarily, in an open or concealed manner, be transformed into a throwing weapon; it must be managed without the hand leaving the hilt, and, in the course of an offensive action, without sliding the hand along the hilt from front to rear.

The use of the unarmed hand and arm is prohibited, both on offense and on defense. The penalty for a violation is annulment of a touch that may have been scored and the penalty of a touch, after a warning given in the course of the same pool, same team match, or the bouts by direct elimination.

In foil in the course of a bout, it is likewise prohibited to protect or cover the valid surface (target) with the unarmed hand or arm. The penalty for a violation is the annulment of a touch that might have been scored on his opponent by the fencer at fault, or the penalty of a touch, after a warning given in the course of the same bout. During the fencing action, under no circumstances may the fencer's unarmed hand grasp any part of the electrical equipment (for example, the reel wire). The penalty for violation of this rule is a penalty touch, after a warning given in the course of the same bout.

§4. Putting on guard

31 The fencer first called must place himself on the Director's right, except in the case of a bout between a right-hander and a left-hander, if the left-hander is called first. The Director must place each of the two competitors so that his forward foot is 2 meters from the middle line of the strip (i.e., behind the "on-guard" line).

Placement on guard at the beginning of a bout and all replacements on guard are always made in the middle of the width of the strip.

The guard position is assumed by the fencers on the Director's command "On guard." After which, the Director asks "Are you ready?" Upon an affirmative reply, or in the absence of a negative reply, he gives the command to begin: "Fence." The fencers must place themselves on guard correctly and must maintain complete immobility until the Director's command "Fence."

In case the Director observes in the course of the bout that one of the fencers is using the unarmed hand or arm, he may ask for the assistance of two judges, as neutral as possible, who will be named by the Directoire Technique. These judges, located on each side of the strip, will each watch one fencer and indicate, by raising a hand or in response to the Director's question, any use of the unarmed hand or arm. The Director alone will decide the penalties to be imposed.

The Director may likewise have the two fencers change places, so that the one who commits this irregularity does not have his back toward him.

§5. Beginning, stopping and restarting the bout

32 1. As soon as the command "Fence" has been given, the competitors may begin offensive action. No action begun or completed before the command is counted.

2. The end of action is marked by the command "Halt," except for special cases that change the regular and normal conditions of fencing.

As soon as the command "Halt" has been given, a fencer may not begin a new action; only an action already under way remains valid. Everything which happens afterwards is completely invalid.

If one of the fencers stops before the command "Halt" and is touched, the touch is valid.

The command "Halt" is also given if the play of the fencers is dangerous, confused or contrary to the rules, if one of the fencers is disarmed, if one of the fencers leaves the strip completely, or if, in retreating, he nears the spectators or judges.

3. After each touch awarded as valid, the fencers are put back on guard at the center of the strip. If the touch is not awarded, they are put back on guard in the positions they occupied when the bout was interrupted.

4. Except in unusual circumstances, the Director may not permit a fencer to leave the strip.

§6. Fencing at close quarters (infighting)

33 Fencing at close quarters is permitted as long as the fencers can use their weapons normally, and as long as the Director can continue to follow the action ("phrase d'armes").

§7. Corps à corps

34 The "corps à corps" exists when the competitors remain in bodily contact; in this case, the Director halts the bout.

§8. Evasive actions, displacing the target, passing the opponent

35 Displacing the target, ducking under attacks, turns and halfturns are permitted, including ducking actions in which the unarmed hand may come in contact with the ground.

In the course of a bout, when a fencer passes his opponent, the Director must immediately give the command "Halt" and put the fencers back on guard in the places they occupied before the passing action occurred.

When touches are made in the course of a passing action, the touch made immediately (on the pass) is valid, and a touch made after passing the opponent is annulled; but one made immediately, even by turning around, by the fencer who has been attacked, is valid.

§9. Ground gained or lost

36 At the command "Halt," ground gained is held until a touch has been awarded. When they are put back on guard, the fencers must each retire an equal distance to reestablish fencing distance.

37 However: a) when the bout has been stopped because of a corps à corps, the fencers are replaced on guard so that the one who sustained the corps à corps, is at the place which he previously occupied; the case is the same if his opponent has made a flèche attack against him, even without a corps à corps.

b) A replacement on guard may have the effect of putting behind the warning line a fencer who was in front of it when the bout was stopped, if this fencer has not already been warned

§10. Crossing the boundaries of the strip

a) *Stopping the bout*

38 When a competitor crosses one of the boundaries of the strip with both feet, the Director must immediately call "Halt" and annul everything which happened after the crossing of the boundary, except a touch received by the fencer who crossed the boundary, even if it was received after the crossing, provided it resulted from an immediate parry-riposte.

When one of the fencers leaves the strip, only the touch scored under these conditions by the fencer who stays on the strip can be awarded, even in the case of a double touch, with the exception, however, of the case set forth in Article 42.

b) *Rear limits and warning lines.*

When a fencer's rear foot has reached his warning line for the last time, the Director gives the command "Halt" and warns the fencer of the ground remaining to him before he will cross over the rear limit of the strip. He repeats this warning each time that the fencer, after having regained his on-guard line with his forward foot, again reaches his warning line with his rear foot. The fencers are not warned at any other location on the strip.

40 The competitor who, after a warning, crosses—i.e., crosses with both feet—the rear limit of the strip, is declared touched. However, if the fencer crosses the rear limit without having been warned, he is put back on guard at the warning line.

41 The ground must be used as many times as is necessary to allow each fencer the benefit of the full regulation length for retreating, but they will be warned only when they reach the warning line for the last time.

42 If, after having crossed the rear limit, the fencer attacked parries and immediately ripostes or makes a stop, or executes a stop with opposition, the touch thus scored is valid. This provision is not applicable to the fencer who crosses the rear limit of the strip for the last time.

c) *Lateral boundaries.*

43 If a competitor crosses the lateral boundary of the strip with only one foot there is no penalty, but the Director must immediately give the command "Halt" and put the fencers back on guard on the strip.

The competitor who crosses one of the lateral boundaries with both feet is penalized. Upon the return on guard, his opponent will be advanced, from the position that he held at the moment of the action, by one meter in foil. The competitor who is placed beyond the rear limit of the strip with both feet by this penalty is declared touched, provided that he had already been warned at his warning line.

The fencer who crosses one of the limits with both feet to avoid being touched—particularly in making a flèche—will be penalized one touch, after a warning given in the course of the same bout.

d) *Leaving the strip accidentally.*

44 The competitor who crosses one of the limits as a result of an "accident" (such as a collision) is not liable to any penalty.

§11. Duration of the bout

45 By duration of the bout is meant effective duration, that is, the sum of the periods between the commands "Fence" and "Halt," not counting time used for deliberations of the jury or for other interruptions. The effective duration of a bout is: in all weapons for 5 touches = 6 minutes (5 minutes with an additional 1 minute warning). In bouts of direct elimination in women's foil 8 touches = 10 minutes (9 minutes with an additional 1 minute warning).

46 The Director, himself advised by the timekeeper (who must not call "Halt" or sound any signal), halts the fencing and advises the fencers that approximately one minute remains before the expiration of the time allowed for fencing. The touch started at the moment of the Director's "Halt" remains valid.

In cases of a prolonged interruption of the bout during this last minute, the fencers may, upon coming back on guard, be informed of the time remaining to them for fencing.

At the expiration of the regulation time, the timekeeper must call "Halt" (or sound a signal) – which stops the bout and even an action already started is not valid.

48 In the course of a bout, the Director may penalize by a warning, then by a touch, and then by exclusion from the competition, a fencer who improperly endeavors to create or prolong interruptions of the bout.

§12. Accidents-indispositions-withdrawal of a fencer

50 If a fencer is the victim of an accident that has been duly verified by a physician on duty, the Director may allow him one single rest period of 20 minutes maximum, in order to put himself in condition to fence.*

51 In case of one or several indispositions that have been duly verified, the Director may grant the fencer one single rest period of 10 minutes maximum in the course of the same team match, or the same pool, or during the bouts by direct elimination.*

52 The Director, after consultation with the physician on duty, may require the withdrawal of a fencer whose physical incapacity to continue is apparent.

* In the application of Articles 50 and 51, a cramp must be regarded as an indisposition and not as an accident and will fall under the provisions of Article 51.

CHAPTER VII – THE DIRECTION OF A BOUT AND THE JUDGING OF TOUCHES

A. OFFICIALS

§1. The Director ("Président")

53 Every fencing bout is under the control of a Director whose duties are many:

a) He calls the roll of the fencers.
b) He directs the bout.
c) He inspects the equipment, including the insulation of wires, particularly on the inside of the guard.
d) He supervises his assistants (judges, floor judges, timekeepers, scorekeepers, etc.)
e) He maintains order.
f) He penalizes offenses.
g) He awards the touches.

§2. The Jury: Judges and Floor Judges

54 The Director accomplishes his mission either with the assistance of four judges ("Assesseurs"), or with the aid of an automatic touch signaling machine. In the latter case he may have the assistance of two judges watching for the use of the unarmed hand or arm or of two floor judges.

The Director and the judges (or floor judges) form the "jury."

55 In accepting service on a jury, each of its members by so doing engages on his honor to respect the rules and to enforce them, as well as to perform his duties with the most scrupulous impartiality and the most sustained attention.

§3. Auxiliary personnel

1. Scorekeepers and timekeepers

59 Whenever it is possible for them to do so, the organizers will appoint, on their own responsibility, scorekeepers who will be responsible for keeping the score sheet for the pool and the score boards, and a timekeeper who will be responsible for timing the duration of the bouts.

B. JUDGING BY A JURY

§1. Duties of the Director

61 The Director will station himself at a distance from the strip that will permit him to follow the actions of the fencers thoroughly; he will follow their movements up and down the strip.

§2. Location of the jury

62 On each side of the strip there are two judges, respectively to the right and left of the Director, and a little behind the fencers. The two judges on the Director's right watch the fencer on the Director's left, particularly to observe the materiality of touches that may be received by that fencer.

In similar fashion, the two judges on the Director's left watch the fencer on the Director's right, particularly to observe the materiality of touches that may be received by that fencer.

§3. Judging

a) Procedure

63 The Director, who alone is responsible for the direction of the bouts, gives the commands. However, another member of the jury may call "Halt," but only in case of an apparent or imminent accident. Similarly, the timekeeper stops the bout by calling "Halt" at the expiration of time.

64 As soon as a judge sees a material touch (valid or not) against the fencer he is particularly watching, he must raise his hand to advise the Director.

65 All judging is carried out aloud and without the members of the jury leaving their places.

66 The jury is not bound by the acknowledgement of a touch by a fencer, even when properly made.

67 The jury first determines the materiality of the touch or touches. The Director alone then decides which fencer is touched, by applying the conventional rules for each weapon.

b) Materiality of the touch

68 Immediately upon the stopping of the bout, the Director briefly analyzes the actions composing the last phrase d'armes before the "Halt," and in the course of his analysis, he asks the two judges watching the same fencer to learn if, in their opinion, each of the actions thus analyzed has produced a touch against that fencer.

The judges, upon being questioned, must reply in one of the following ways: "yes," "yes, but on invalid surface (off-target)," "no," or "I abstain." The Director votes last.

69 The Director then adds the votes thus elicited on either side: the opinion of each judge counts as one vote and the Director's own opinion as a vote and a half, with abstentions not being counted:

1. If both judges on one side agree in a definite opinion (either both "yes" or both "no," or both "yes, but on invalid surface"), their judgement prevails.

2. If one of the judges has a definite opinion and the other abstains, the Director alone can decide since his vote is preponderant; if he also abstains, the vote of the judge having a definite opinion prevails.

3. If the two judges have definite but contradictory opinions or if they both abstain, the Director may decide according to his own opinion; if he also abstains, the touch is considered doubtful (see Para. 5 below).

5. A touch of doubtful materiality is never counted to the disadvantage of the fencer who may have received it; but, on the other hand, any touch made subsequently or simultaneously in the same phrase d'armes by the fencer who has benefited from this doubt must also be annulled; as for a touch subsequently made by the fencer who had made the doubtful touch, it is necessary to distinguish:

I. - If the new touch (remise, redoublement, or riposte) is made by the fencer who had made the doubtful touch, without any intervening touch by his opponent, this new touch must be awarded.

II. - But if the doubt was as to the place where the touch arrived (one "yes" and one "yes, but off-target"), no further touch in that phrase d'armes can be awarded.

III. - The situation is the same if, between the doubtful touch and the new touch made by the same fencer, his opponent has also made a touch that has been annulled as doubtful.

70 After the decision of the jury on the materiality of the touch, the Director, acting alone and by application of the rules conventional for each weapon, decides which fencer must be declared touched or if no valid touch is to be awarded.

C. JUDGING WITH A SCORING MACHINE. (See Part Two, Chapter IV-E)

PART TWO: FOIL

CHAPTER IV – THE CONVENTIONS OF FENCING WITH THE FOIL

A. METHOD OF MAKING TOUCHES

219 The foil is a thrusting weapon only. An offensive action with this weapon must therefore be made with the point and only with the point. Every thrust with the point must arrive clearly and plainly to be counted as a touch.

B. VALID SURFACE (TARGET)

§1. Limitation of the valid surface

220 In foil, only those touches that reach a surface classified as valid (the target) are counted.

The valid surface, in both women's and men's foil, excludes the limbs and the head. It is limited to the trunk of the body, reaching at the top to the upper edge of the collar to a height of six centimeters above the top of the collar bones (clavicles); at the side, it reaches the seams of the sleeves, which should pass over the top of the humerus; at the bottom, it follows a lines that passes horizontally across the back at the level of the top of the hip bones, and from there proceeds in front by straight lines to the junction of the groin.

221 The bib of the mask is not part of the target.

§2. Extension of the valid surface

222 Touches arriving on a part of the body classified as invalid are counted as valid when, by an abnormal position, the fencer has substituted this invalid surface for a valid surface.

§3. Invalid surface

223 A touch that arrives on an invalid surface (whether directly or as the result of a parry) is not counted as a valid touch, but stops the phrase d'armes and thus annuls all subsequent touches.

C. CORPS À CORPS AND FLÈCHES

224 Whenever, in foil, a fencer intentionally or systematically causes the corps à corps (even with neither brutality nor violence), he must be penalized one touch–after a warning given in the course of the same bout.

D. DURATION OF THE BOUT

226 When the time runs out before the bout is decided:

a) if one of the competitors has received more touches than the other, there is added to his score the number of touches necessary to arrive at the maximum, and the same number is also added to the score of the other fencer;

b) if the two fencers are tied, they are both regarded as having received the maximum number of touches, less one; and they fence without limit of time for the last touch. They are put back on guard at the positions they occupied when the bout was interrupted.

E. JUDGING TOUCHES IN FOIL

227 Foil competitions are usually judged with the aid of an electrical scoring machine. The organizers are obliged to announce in advance if the competition will be judged by a jury.

I. MATERIALITY OF THE TOUCH

§1. With a jury.

§2. With a scoring machine.

228 1. For judging the materiality of the touch, the indication of the scoring machine alone is the determinant. In any case, the Director may not declare a fencer touched unless the machine has properly registered the touch (except in case of penalties provided in the rules).

229 In using the scoring machine, note that:

a) if the two signals on the same side (both white and colored) are lit, the invalid touch preceded the valid touch;

b) otherwise, the machine does not indicate whether there was any priority in time between two or more touches that it registers at the same time.

230 2. The Director will disregard signals resulting from thrusts:

– started before the command "Fence" or after the "Halt."

– touching the ground (outside the metallic strip or when there is none), or touching any object whatsoever other than the opponent or his equipment.

The fencer who intentionally causes a touch signal by putting his point on any surface whatsoever other than his opponent shall be penalized one touch–after a warning given in the course of the same pool, the same team match, or during the bouts by direct elimination.

It is forbidden for a fencer to put an uninsulated part of his weapon in contact with his metallic vest with the intention of blocking the operation of the machine and thus avoiding being touched.

The penalty for this violation is the annulment of a touch that may have been scored by the fencer who creates the blocking of the machine.

In case of a repetition, the penalty is annulment of the touch that may have been scored and–after a warning valid for the whole pool, the whole team match, or the bouts by direct elimination–the penalty of one touch.

In case of another repetition, the penalty is exclusion from the competition.

231 3. The Director, on the other hand, must take into account possible defects in the scoring equipment, particularly:

a) He must annul the touch he has just awarded, as the result of the appearance of a valid touch signal (colored lamp), if he establishes, by tests carried out under his careful supervision, and before any effective resumption of the bout* and without anything having been changed in the equipment in use:

– either that a "valid" touch signal is produced against the fencer declared touched without there actually being a valid touch;

– or that an invalid touch made by the fencer declared touched is not registered by the machine;

– or that a valid touch made by the fencer declared touch do not remain fixed on the machine.

b) On the other hand, when the Director has determined that one fencer's touch had the priority (right of way), there is no ground for annulling that touch if tests then show that a valid touch made by the fencer declared touched is registered as invalid or that the latter's weapon gives a permanent invalid signal.

c) If a fencer's equipment does not conform to the specifications for insulation of lame and mask, there is no ground for annulment in case a valid signal is produced by a touch on his invalid surface.

4. The Director must also apply the following rules:

a) Only the last touch preceding the establishment of a defect can be annulled;

b) The fencer who, without being asked by the Director, has made modifications in, or has changed, his equipment before the Director has given his decision, loses all right to annulment of a touch.

c) If there has been an effective resumption of the bout (see note to paragraph 3a above), a fencer may not claim the annulment of a touch awarded against him before the said resumption;

d) The localization of a defect found in the equipment (including the fencers' own equipment) is of no consequence for this possible annulment.

e) It is not necessary that the defect found should repeat itself at every test; but it is necessary that it has been positively observed at least once by the Director himself in the course of tests made by him or under his supervision;

f) The sole fact that the fencer declared touched has broken his blade is not sufficient to annul that touch;

g) The Director must be especially alert for touches that are not signalled, or abnormally signalled, by the machine. In case of repetition of these defects, the Director must call for the member of the Commission on Electrical Scoring and Equipment who is

present, or for the technical expert on duty, in order to determine whether the equipment conforms to the rules.

The Director must watch that nothing is changed either in the fencers' equipment or in the whole of the electrical equipment before the inspection by the expert.

5. In all cases in which the verification has been made impossible as the result of accident, the touch will be regarded as "doubtful" (see 69/5).

6. If signals appear on the apparatus simultaneously from both sides and the Director cannot establish the priority (right of way) with certainty, he must put the fencers back on guard.

7. In application of the general rule, even if no signal has been registered, the Director must halt the bout as soon as the action becomes confused and it is no longer possible for him to analyze the phrase d'armes.

8. The Director must also watch the condition of the metallic strip; he will not permit the bout to be started or to be continued if the metallic strip has holes capable of interfering with the registration of touches. (The organizers shall make provision for the rapid repair or replacement of metallic strips.)

II. VALIDITY OR PRIORITY OF THE TOUCH (RIGHT OF WAY)

§1. Preliminary note

232 Whatever means the Director has used to reach a decision on the materiality of the touch (with the assistance of a jury or by aid of a scoring machine), it is then his responsibility alone to decide on the subject of the validity or priority (right of way) of the touch by applying the following principles which are the conventions proper to foil fencing.

§2. Observance of the phrase d'armes (fencing phrase)

233 a) Every correctly executed attack must be parried or completely avoided, and the phrase d'armes must be followed through.

To judge the correctness of an attack, the following points must be considered:

1. If the attack starts when the opponent is "in line" (i.e., "with the arm extended and the point threatening a valid surface"), the attacker must first deflect his adversary's weapon*;

2. If the attack starts when the opponent is not in line, it may be executed either by a direct thrust or by a disengagement, or by a cutover (coupé), or may be preceded by effective feints that force the opponent to parry;

* Directors must be alert that the mere grazing of the blades is not considered as sufficient to deflect the opponent's blade.

3. If, in searching for the opposing blade to deflect it, the blade is not found (derobement or trompement), the right of way passes to the opponent.

234 b) The parry gives the right of way to the riposte; the simple riposte may be direct or indirect, but to annul any subsequent action of the attacker, it must be executed immediately, without indecision or delay.

235 c) In a composite attack, if the opponent finds the blade on one of the feints, he has the right to riposte.

236 d) In composite attacks, the opponent has the right to make a stop; but to be valid the stop must precede the conclusion of the attack by a period of fencing time, i.e., the stop must touch before the attacker has commenced the last movement of the conclusion of the attack.

§3. Judging

237 In applying these fundamental conventions of the foil, the Director must judge as follows:

Whenever, in a phrase d'armes, the fencers are both touched simultaneously, there has been either a simultaneous action or a double touch.

The former is the result of simultaneous conception and execution of the attack by both fencers; in this case, the touches given are annulled for both fencers, even if one of them has touched an invalid surface.

The double touch, on the contrary, is the result of a faulty action on the part of one of the fencers.

Consequently, if there is not a period of fencing time between the two touches:

1. The fencer attacked is alone counted as touched–

a) if he makes a stop into a simple attack;

b) if, instead of parrying, he attempts to avoid being touched, and fails;

c) if, after a successful parry, he pauses for a moment–which gives his opponent the right to resume his attack (redoublement, remise, or reprise);

d) if, on a composite attack, he makes a stop without having the advantage of a period of fencing time;

e) if, being in line (arm extended and point threatening a valid surface), after a beat or a taking of the blade which deflects his weapon, he attacks or replaces his blade in line instead of parrying a direct thrust made by the attacker.

2. The attacker alone is counted as touched–

a) if he starts his attack when the opponent is in line (arm

extended and point threatening a valid surface) without deflecting the opposing blade*;

b) if he attempts to find the blade and fails (because of a derobement or trompement) and still continues the attack;

c) if, in a composite attack, in the course of which his opponent finds the blade, he continues the attack while his opponent immediately ripostes;

d) if, in a composite attack, he hesitates for a moment during which the opponent delivers a stop thrust, yet he continues his attack;

e) if, in a composite attack, he is hit by a stop made with the advantage of a period of fencing time before his conclusion;

f) if he touches by remise, redoublement, or reprise, after a parry by his opponent which is followed by an immediate simple riposte executed in one period of fencing time and without withdrawal of the arm.

3. The fencers are replaced on guard, every time that the Director cannot decide clearly which side is at fault in a double touch.

One of the most difficult cases to decide occurs when there is a stop and there is doubt as to whether it had a sufficient time advantage over the conclusion of a composite attack. In general, in this case, the double touch is the result of simultaneous faults by the fencers, which fact justifies the replacement on guard. (The fault of the attacker lies in indecision, slowness or inefficient feints; the fault of the fencer attacked lies in his delays or slowness in making the stop).

WE ENCOURAGE ALL READERS TO PURCHASE THE AFLA RULES BOOK *FENCING RULES FOR COMPETITIONS* (1974 edition).

* Directors must be alert that the mere grazing of the blades is not considered as sufficient to deflect the opponent's blade.

Techniques and Procedures for Officiating Women's Foil

DENISE O'CONNOR

The information set forth in this article is based entirely on the rules as listed in the 1974 edition of the *Fencing Rules* published by the Amateur Fencers League of America.

I *Introduction*

A. *The Article*

This article is not a substitute for the rules of fencing. It is presented as a guide to both Directors and Judges and attempts to clarify the functions of these officials.

B. *Definitions*

The definitions of fencing actions are explanatory and in no way modify the text of the rules as presented by the Amateur Fencers League of America, the governing body of fencing in the United States.

C. *The President of the Jury*

1. The President of the Jury shall be called the Director of the Bout.

2. The rules of fencing give the Director almost unlimited power to maintain order and discipline. With such power there is corresponding responsibility:

a. The Director's function is to provide an atmosphere in which the contestants and spectators can derive maximum enjoyment from the test of skill between two opponents. While she is an important requisite to competitive fencing, she must never forget that the contestants are the center of attraction. As long as the fencers conduct themselves properly, she should be as unobtrusive as possible while controlling the progress of the bout. When one or both of the fencers, or the audience, disrupts the proper conduct of the competition she should assert herself immediately and without equivocation.

b. The rules of discipline should be applied firmly, but when discretionary penalties are imposed, due allowance should be made for the tensions that normally prevail among contestants in the heat of competition. In brief, the code of good sportsmanship applies equally to both contestants and officials.

c. The calm, impartial, and confident handling of a bout

are attributes of a Director who inspires the confidence of the competitors. A hesitant, indefinite, and inconsistent official will lose the confidence and the control of the bout.

D. *The Rules*

It is the responsibility of the Director to READ THE RULES and to KNOW THE RULES.

E. *The Jury*

Members of the jury must remain impartial throughout the competition and judge each hit to the best of their abilities.

II *General Procedures*

A. Be certain of date, time, and site when accepting the fencing match.

B. If unable to keep the appointment, notify team officials at least 24 hours in advance. If less than 24 hours' notice is given because of an emergency, a substitute must be secured when requested by the team officials.

C. Do not cancel an appearance in order to officiate at another match more suitable to one's liking. This is considered unethical.

D. Wear the appropriate skirt, blouse, and shoes or the official uniform.

E. Arrive at the site of the competition 15 to 20 minutes before the scheduled start.

F. Introduce yourself to the coaches and other officials.

III *Before the Fencing Starts*

A. Check that the scoring table, team benches, and spectators are more than 8 feet from the side of the strip. If it is necessary to seat spectators behind the Director, seating should be arranged no closer than 9 feet from the Director or 18 feet from the strip. If judges are used, the scoring table and team benches must be at least 12 feet from the strip.

B. Inspect the strip and boundaries of the strip from the viewpoint of safety factors which might require special attention. Strip rules may be modified to insure safe fencing conditions.

C. Explain the strip rules to the captain of each team.

D. Explain their duties to the scorekeeper and timekeeper. (See Duties of Officials)

E. Check the timing device.

F. Check the scoresheet 2 minutes before the scheduled start of the competition to see that the names of the competitors are listed correctly.

G. Check the electrical apparatus including the machine, cables, reels, and, if used, the scoring device. If a technician is not available, this check may be accomplished by hooking up two fencers. Be certain the machine is registered for foil, not épée.

H. If judges are to be used:

1. Explain their duties.
2. Explain the method of replying to questions.
3. Assign positions.

I. Check each fencer for the proper uniform which includes the required under-arm plastron, masks and uniforms that conform to safety standards including the covering of the legs with stockings or with pants that fasten at the ankle. At no time should a fencer be permitted to compete if she is without the proper uniform necessary to fully protect her during the progress of the bout.

J. Explain the procedures of the bout to all concerned, the fencers, coaches, timers and scorers, and the judges.

IV *Starting the Bout*

A. *Positioning the Officials and the Contestants*

1. The Director stands opposite the scoring table about 8 to 12 feet away from the strip.

2. The judges maintain positions to the rear and 3 feet to the side of the fencer nearest them.

3. At the start of the bout, and after each touch has been awarded, the fencers should be put on guard with both feet behind the on guard lines. The fencers must always be put on guard in the center of the width of the strip, whether at the beginning of the bout or during the progress of the bout.

4. The fencer called first should place herself to the right of the Director, except in the case of a right- and a left-handed fencer, if the left-handed fencer is called first.

5. If one of the fencers is left-handed, she should place herself to the left of the Director. If only two judges are used, the Director should place herself so that she views the backs of both fencers while the judges are positioned so they see the front targets.

B. *Calling the Contestants*

The scorer will call each bout and the "On deck" fencers. If one of the fencers does not report to the strip when her name is called, wait 1 minute and repeat the call. If she fails to report to the strip within 1 minute of the second call, award the bout to her opponent. Record the score 4 - 0.

C. *Testing the Equipment*

1. At the beginning of each bout, and after each change in equipment, check the spring resistance of the foil with the foil weight.

2. Require each contestant to bring to the strip with her, two weapons in good working order and an extra body wire, also in good working order.

3. Each contestant will check the circuit and her equipment by pressing the point of the foil first on her opponent's off target and then on her good target area. Each contestant is to test her own equipment. Do not permit a contestant to hold the blade of her opponent's foil and do the testing herself on her own target.

V *The Bout*

A. *Beginning, Stopping and Restarting the Bout*

1. Before every command to fence, the Director must say, "On Guard," "Are you ready?" "Fence."

a. After the command "On guard," pause.

b. Both fencers must answer the question, "Are you ready?" If there is no answer after a pause, the Director assumes that the fencers are ready to fence.

c. The fencers may not initiate a move until the command "Fence" is given.

2. The command "Halt" stops the bout.

a. When one of the judges raises her hand.

b. When the machine registers a hit.

c. When the actions of the competitors are dangerous, confused, or contrary to the rules.

d. When one of the competitors is disarmed.

e. When one of the competitors crosses the boundary of the strip with either one or two feet.

f. When the timekeeper calls "Halt" at the end of 4 minutes and at the end of the 1-minute warning.

3. A contestant who stops the bout on her own does so at her own risk.

a. The sound of the machine does not stop the bout, only the command "Halt."

b. If the contestant stops the bout without the command "Halt" and a valid hit is scored, the touch is awarded.

c. A contestant must signal the Director of the Bout with an appell (tap twice on the strip with her front foot) to stop the bout.

d. If a judge sees a safety hazard, she may call "Halt" and the command should be recognized as a call in good faith.

156

4. Fencers return to the on-guard line after a touch has been awarded. When the command "Halt" is given, both fencers hold their ground until a decision has been awarded. If a valid hit has not been scored, both fencers are put on guard with each fencer retreating equally in order to attain fencing distance.

a. When the bout has been stopped as a result of corps a corps or close contact, the fencers are put on guard so that the fencer who sustained the corps a corps is at the place she previously occupied.

b. When a flèche has occurred, the defender holds her ground and the attacker is placed on guard at the proper fencing distance.

c. If a fencer is in front of a warning line at the time "Halt" is called, she must be placed on guard in front of the warning line if a warning has not been given.

d. If a fencer is behind the warning line when "Halt" is called, she must not be put on guard so as to lose ground.

B. *Changing Positions in Non-Electrical Foil*

1. After each valid hit is awarded, the competitors are put on guard behind the on guard lines and in the center of the strip. If the hit is not valid, the competitors are put on guard in the position they occupied when the fencing action was halted.

2. After one of the competitors has received 2 touches or half the maximum number of touches she can receive, the fencers shall change positions by crossing to the left of each other and shaking hands in the process.

3. If one of the fencers is left-handed, the competitors remain in their positions and the judges shall change positions, remaining on the same side of the strip as they started.

4. If the event is fenced outdoors, the competitors shall change positions after each touch is awarded.

C. *Fencing at Close Quarters*

Fencing at close quarters is allowed as long as the competitors can wield their weapons correctly and the Director can follow the phrase.

D. *Corps à Corps*

The corps à corps exists when the two competitors remain in contact; when this occurs, the Director must stop the bout. The fencers are placed on guard at equal distance from each other.

E. *Ground Gained or Lost*

When the command "Halt" is given, ground gained is held until a hit has been awarded. When competitors are replaced on

guard, each fencer should retire equally in order to attain fencing distance. (See V. The Bout, Section A, #4.)

F. *Crossing the Boundaries of the Strip*

The director must call "Halt" immediately when a contestant crosses one of the boundaries of the strip with either one or two feet.

1. Crossing the side with one foot.

a. When a fencer crosses the side boundary with one foot, the Director calls "Halt" and puts the offending fencer on guard in the center of the strip in the same position she incurred the fault.

b. Only a hit made by the fencer who remains on the strip can be counted as valid, even in the case of a double hit. However, if the fencer causing the infraction scores the hit as she is stepping off the side of the strip, the hit shall be counted as valid if it is in time.

2. Crossing the rear limits of the strip.

a. When the rear foot of a fencer crosses the warning line for the first time, the Director calls "Halt" and gives the meter warning.

b. When the offending fencer crosses the rear limits of the strip with both feet after the first warning has been given, the Director shall call "Halt" and award a touch against the offending contestant.

c. If the fencer has regained ground so that her front foot has reached the on guard line, the warning shall be repeated if she retreats to the on guard line again.

d. Contestants are not reminded of their position unless the proper distance has been regained.

e. If a fencer crosses the rear limits of the strip without having been warned, she is put on guard at the warning line and given the warning.

f. If having crossed the rear limit of the strip, the fencer who is attacked parries and makes an immediate riposte or makes a stop hit in time, such a hit shall be counted as valid. This rule will not apply to a fencer who crosses the rear limit of the strip for the last time.

3. A contestant may not leave the strip during the course of the bout unless she has the permission of the Director.

G. *Indispositions and Accidents*

1. If an indisposition occurs and has been duly recognized, the Director may grant the competitor a period of rest for a maximum time of 10 minutes once only during the same match (teams) or the same pool (individual) or the last 15 bouts by direct elimination.

2. If an accident occurs the Director allows the victim a period of rest once only and that for a maximum time of 20 minutes in order that she may recover sufficiently to continue the bout.

3. The Director of the Bout may on her own authority, require the withdrawal of a competitor whose physical inability to continue the bout is obvious.

H. *Delaying the Bout*

The Director may, during the progress of the bout, penalize by a warning, then by scoring one hit against the competitor and finally by exclusion from the competition, a contestant who improperly uses delaying tactics to prolong the bout.

I. *Defective Equipment*

If a fencer on the strip is found to be in possession of equipment which is non-regulation or defective, such equipment will be confiscated and will only be returned to the fencer after the completion of the event or after the equipment has been properly repaired.

1. If the equipment becomes defective during the course of the bout, the Director shall allow the fencer the time necessary to replace the defective equipment without imposing a warning or penalty.

2. If the fencer is found responsible for the defective equipment, the Director shall allow her the time necessary to replace it with regulation equipment and will give her a warning. If there is a repetition of the same fault during the event, the fencer shall be excluded.

3. If the Director establishes that a fencer is using falsified equipment, the fencer shall be immediately and irrevocably excluded from the competition.

J. *General Information*

1. Carry out the primary function of the Director of the Bout, which is to analyze fencing actions and to make decisions. The Director must use fencing terminology and call the actions as she sees them. She is not to be influenced by remarks of the coaches or spectators. The Director must not give a fencing lesson on the strip nor make any comments about the quality of the fencing unless it becomes dangerous to both fencers and the spectators.

2. Insist on promptness throughout the competition to prevent the loss of time.

3. Do not permit coaching from the sidelines.

4. Protect the rights of all contestants. Do not grant to one a

privilege which would not be granted freely to all others. Treat all contestants courteously, particularly when imposing penalties.

5. Watch for uniform tears, inadequate covering of neck and wrist, loose shoelaces, etc.

6. In electrical events, watch for loose connections and watch the surface of the fencing strip for tears or foreign matter which may interfere with the proper registration of touches or constitute a hazard.

7. Be alert for violation of boundaries.

8. Keep the lights of the scoring machine in line of vision at all times while watching the actions of the contestants. This sometimes will require the Director to stand at a severe angle to the contestants instead of between them.

9. Be certain the machine is cleared before each command to fence.

10. Instruct the machine operator to clear the machine at the question, "Are you ready?" The machine must not be cleared until after the Director has made her decision and before the command to fence.

VI. *The Awarding of Hits*

A. In electrical foil, the Director of the Bout decides the "right of way" and the validity of the touch. The Director alone makes the decision and should not be influenced by the contestants, coaches, spectators, or the scorekeeper or timekeeper who may argue as to "which light went on first."

B. When judges are used:

1. The Director calls "Halt" when a judge raises her hand.
2. The Director briefly analyzes the sequence of play.
3. The Director asks each pair of judges in turn whether a hit has been scored on the fencer they are watching in each action of the phrase she has outlined:

Director: The attack starts from the left. Did it arrive?"
Judge A: "No."
Judge B: "Abstain."
Director: "No, parried. The riposte?"
Judge C: "Yes."
Judge D: "Yes."
Director: "Touch against the left."

a. The Director alone decides which of the two judges on each side she will question first (usually the one in a better position to see a possible hit), but she must question the other judge watching in the same direction before she expresses her own opinion, if any, and before questioning the judges on the other side.

If only one judge is used on each side, the Director must ask the opinion of the judge before she expresses her opinion.

b. The Director may review the votes of the judges if there is reason to believe that a misunderstanding has occurred. She may, if she wishes, require any judge to indicate the area of the target where she thinks a hit has been scored.

c. All decisions are rendered on the basis of a majority of votes cast. When the judges on one side are in agreement, the Director's contrary opinion cannot change the result. If the Director is outvoted, she should refrain from voicing her opinion as this would be a criticism of the judges and encourage dissatisfaction on the part of the contestants.

d. If the decision of the Director is questioned by either the fencer or the captain of the team, the Director may explain her decision is she deems it desirable to do so. However, this should be discouraged as it can lead to more challenges and an undesirable atmosphere. The Director must give her decisions confidently and without hesitation.

e. The Director must not permit any discussion between the fencers and the judges, between the judges themselves, or between the fencers, judges, and spectators.

f. The Director must not influence the judges concerning decisions. If the Director finds one or two of the judges to be hesitant or inconsistent, the Director may place the judge on the same side of the fencer as the Director.

g. The Director has the power to annul a touch already awarded, or to reverse her decision against the awarding of the touch if she discovers:

(1) That a judge has voted incorrectly on the hit through a misconception or misapplication of the rules or

(2) That she herself has erred under the rules in deciding the validity of the rules.

The annulment or reversal of decision must be made immediately and before any fencing begins following the original awarding of the touch. This power cannot be exercised after the start of continued fencing.

4. *Method of Voting*

a. When a judge sees a hit, on or off target, she should advise the Director by raising her hand. The Director will stop the bout and question the judge. The answers from the judge should be:

(1) "Yes," if she is absolutely certain a hit is scored on valid target.

(2) "No," if she is absolutely certain a hit is not valid.

(3) "Off-Target," if she is absolutely certain that the hit was scored on the off-target area.

(4) "Abstain," if she is not certain as to the validity or the placement of the hit.

b. An experienced judge may answer "parried" or "passe" if she is certain of the action.

c. The Director cannot call a halt if only she sees a hit as she will either be influencing the judges or be automatically outvoted.

d. The opinion of each judge counts as one vote and that of the Director, one and a half votes. Abstentions are not counted as a vote.

e. A doubtful hit is never scored against the competitor who might have received it. Any hit made simultaneously or subsequently in the same phrase by the fencer who has been granted the benefit of the doubt must also be annulled. If a hit is made subsequently by the fencer who originally made the doubtful hit, the following will apply:

(1) Director: "The attack starts from my left. Did it arrive?"
Judge A: "Yes."
Judge B: "No."
Director: "Abstain." "Benefit of the doubt, no touch."

(2) However if there is no hit from the opposing fencer, the Director must continue:
Director: "Is there a hit from my right?"
Judge C: "No."
Judge D: "No."
Director: "The continuation of the attack (remise, redoublement, or riposte) from my left?"
Judge A: "Yes."
Judge B: "Yes."
Director: "Touch against my right."

(3) If the doubtful hit concerns an off-target, no other hit in this phrase may be scored.

f. After the jury decides the validity of the hit, the Director, acting alone and by applying the conventional rules for fencing, decides against which fencer a hit is to be awarded.

g. Hits are to be scored against the fencer who has been hit. The fencer who scores 4 touches against her opponent first, is the winner of the bout.

Get Involved!

For membership information write:
NAGWS
1201 - 16th St., N.W.
Washington, D.C. 20036

Join the National Association for Girls & Women in Sport –

The only national association devoted exclusively to creating sport opportunities for *all* females – *all* ages, *all* levels

NAGWS SPORTS LIBRARY

SPORTS GUIDES
See inside front cover.

TIPS AND TECHNIQUES
A new series scheduled for publication beginning Summer, 1977. First available titles will be for Aquatics, Basketball, Volleyball, and Track & Field.

RULEBOOKS
Available for Basketball, Field Hockey (pocket size), Lacrosse (pocket size), Softball and Volleyball.

SELECTED SPORTS ARTICLES
Available for Archery, Basketball, Field Hockey, Gymnastics, Lacrosse, Riding, Softball, and Track & Field.

NAGWS AND AIAW SPECIAL PUBLICATIONS
- AIAW HANDBOOK and DIRECTORY
- BIBLIOGRAPHY OF RESEARCH INVOLVING FEMALE SUBJECTS
- DGWS (now NAGWS) RESEARCH REPORTS II
- NAGWS RESEARCH REPORTS III
- FUNDAMENTALS OF ATHLETIC TRAINING FOR WOMEN
- LEAGUE CONSTITUTION AND BYLAWS FOR GIRLS' INTERSCHOLASTIC SPORTS (SUGGESTED GUIDE)
- MOTIVATION IN COACHING A TEAM SPORT
- REGULATIONS FOR AWARDING FINANCIAL AID TO STUDENT ATHLETES
- RIDING STANDARDS
- WOMEN'S ATHLETICS: COPING WITH CONTROVERSY

RELATED AAHPER PUBLICATIONS
- ARCHERY—A PLANNING GUIDE FOR GROUP AND INDIVIDUAL INSTRUCTION
- CURRENT SPORTS MEDICINE ISSUES
- DEVELOPMENT OF HUMAN VALUES THROUGH SPORTS
- DRUGS AND THE COACH
- LITTLE KNOWN OLYMPIC SPORTS
- NEW IDEAS FOR BOWLING INSTRUCTION
- NUTRITION FOR ATHLETES
- SELECTED PROBLEMS IN SPORTS SAFETY
- SPORTS SAFETY
- SPORTS SKILLS TEST MANUALS (ARCHERY, BASKETBALL, SOFTBALL, VOLLEYBALL)
- TENNIS GROUP INSTRUCTION
- THE WINNING EDGE (sports psychology)

For current prices and order information, write AAHPER Promotion Unit, 1201 16th St., N.W., Washington, D.C. 20036.